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## CHAPTER 3

### COSTING FESTIVALS AND WAR: SPENDING PRIORITIES OF THE DEMOCRACY

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#### Introduction

In *Die Staatshaushaltung der Athener* of 1817 August Boeckh passed judgement on the relative cost of Athenian festivals. By ‘squandering away the public revenue in shows and banquets at home’ the Athenians of the fourth century caused their armed forces to be ‘in a continually declining state’.<sup>1</sup> For Boeckh this policy was ‘unjust and inexpedient, inasmuch as the continuance of it without oppressing the allies was impossible, and the State, being deprived of the means of self-defence in a most frivolous and unpardonable manner, was led on to certain destruction’.<sup>2</sup> In support of his view Boeckh cited an assembly speech of 352/1, in which Demosthenes unfavourably compared the city’s waging of war to its organisation of festivals (4.35-7; cf. Diodoros 13.94.1-2; Isokrates 7.52-3): ‘In matters pertaining to war and its preparations (*paraskeuēi*) everything is disordered (*ataкта*), uncorrected and indeterminate (*aorista* – 36).’<sup>3</sup> As a result, all naval expeditions (*tous d’apostolous pantas*) are dispatched too late to prevent Philip of Macedon taking city after city (35, 37). By contrast, the preparations of the City Dionysia and Great Panathenaia are ordered (*tetaktai*) by law, guaranteeing the sponsors of choruses and teams know exactly what to do and ‘nothing remains unexamined and indeterminate (*aoriston* – 36)’. As a consequence, Demosthenes declares, the two festivals take place on time, have greater crowds and paraphernalia (*paraskeuēn*) than any other, and use up more money than is spent even on a single naval expedition (*eis hēna tōn apostolōn*). Boeckh suggested ‘this weak point’ was recognised as well by Plutarch, who proposed in his *On the Glory of Athens*: ‘If the cost of the production of each drama were reckoned, the Athenian people would appear to have spent more on the production of *Bacchaes* and *Phoenician Women* and *Oedipuses* and the misfortunes

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<sup>1</sup> Boeckh 1828, volume 1, 360-1 (book 2 chapter 21).

<sup>2</sup> Boeckh 1828, volume 1, 280 (book 2 chapter 12).

<sup>3</sup> Burckhardt 1996, 215-24. For its date, see Cawkwell 1962a, 122-7; Milns 2000, 206.

of Medeas and Electras than they did on maintaining their empire and fighting for their liberty against the Persians.’<sup>4</sup>

In the balance of his two-volume book Boeckh canvassed exhaustively the epigraphical and literary evidence which was then available on the scale, expenditures and organisation of the festivals of classical Athens and its military corps and expeditions, which helps explain why *The Public Economy of Athens*, despite its publication nearly two centuries ago, is still considered the most thorough treatment of its subject.<sup>5</sup> Importantly however, Boeckh never attempted estimates of the global costs of the festival-program nor of the waging of war as support for his negative view of Athenian funding priorities.<sup>6</sup> Therefore the burden of this chapter is the estimation of these total expenditures in order to test Boeckh’s unequivocal judgement on the relative cost of Athenian festivals and the reliability of the literary passages which he cited in its defence. This will also help determine whether festivals and drama or military affairs were the overriding priority of the Athenian people.

The task of estimating total expenditure on city-sponsored festivals is made easier by recent investigations of the funding arrangements of the City Dionysia, which have been spawned by the shift of scholarly focus towards the ‘social context’ of Greek theatre during the last generation.<sup>7</sup> The first to do so carefully were Eric Csapo and William Slater, who concluded, in *The Context of Ancient Drama*, that Athens of the later fifth century contributed 6 talents to the City Dionysia, while its chorus sponsors spent 18 talents (‘t.’) and 5800 drachmas (‘dr.’) of their own money.<sup>8</sup> The second of their figures was initially supported by Peter Wilson, whose independent calculations, in *The Athenian Institution of the Khoregia: The Chorus, the City and the Stage*, yielded a figure ‘just short of a massive 18 talants for five days’ choral performance’.<sup>9</sup> Subsequently Wilson has completed a new study of this question as part of the project funded by the Australian Research Council which he and Csapo are co-directing on the social and economic history of classical Greek drama. His investigation draws on a vast array of often overlooked evidence from

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<sup>4</sup> *Moralia* 349a. Translation by Csapo and Slater (1994, 149).

<sup>5</sup> Boeckh 1928, volume 1, 280-302 (book 2 chapters 12-13), 332-93 (book 2 chapters 19-29); volume 2, 199-222 (book 3 chapters 21-3). E.g. Samons 2000, 19.

<sup>6</sup> Baldry claims (1971, 33): ‘The German scholar Boeckh estimated direct Athenian state expenditure on all festivals of 25 to 30 talents.’ As *The Public Economy of Athens* gives no such estimate, this appears to be erroneous (Kallet 1998, 359 n.33).

<sup>7</sup> E.g. Walton 1977. Winkler and Zeitlin 1990.

<sup>8</sup> Csapo and Slater 1994, 119-21, 141 *pace* Baldry 1977, 32-4.

<sup>9</sup> P. Wilson 2000, 95; cf. 2003, 168.

fifth- and fourth-century Attike and comparative material from elsewhere to estimate how much this festival cost around 415.<sup>10</sup> His final figure for public spending on the pay of the poets and musicians, equipment, and beasts for sacrifice is 13 t. 1300 dr., while the private outlay of the chorus sponsors and the supervisors of the procession adds up to 15 t. 3900 dr.<sup>11</sup> Interestingly these costings have renewed the early confidence in the literary evidence Boeckh cited.<sup>12</sup> For example, Csapo and Slater believe the comment of Plutarch ‘though exaggerated, is not widely so’.<sup>13</sup> Citing their figures, Lisa Kallet suggests the two passages ‘reflect a popular perception of heavy expenditure on festivals’, which is factually correct, while Wilson concludes that ‘ancient claims about Athenian expenditure on their theatre are fully justified’.<sup>14</sup> In so doing they have called into question the consensus of military historians that Athenian spending on the armed forces was truly enormous and ‘dwarfed all other public expenditure’.<sup>15</sup> Of the attempted costings of the City Dionysia the last investigation by Wilson is clearly the most comprehensive. Therefore its grand total of 28 t. and 5200 dr. for the City Dionysia will be incorporated into my calculations.

The City Dionysia and the Great Panathenaia were of course the major civic festivals of classical Athens and hence accounted for a significant portion of its festival-related spending (e.g. Aristophanes *Peace* 416-20).<sup>16</sup> The combined spending on these two festivals should serve then as a solid basis for estimating total spending on the whole program of state-supervised festivals and public sacrifices.<sup>17</sup> Since we

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<sup>10</sup> P. Wilson 2008, 88.

<sup>11</sup> P. Wilson 2008, 119.

<sup>12</sup> E.g. Sandys 1897, 109-10 with bibliography.

<sup>13</sup> Csapo and Slater 1994, 141.

<sup>14</sup> Kallet 1998, 47; P. Wilson 2008, 119. *Contra* Golden 1998, 164-5.

<sup>15</sup> Quotation from van Wees 2000, 81. Pritchard 2005a, 16. For his part Boeckh wrote of the ‘unusually large and inevitable expenses’ of Athenian military activity and how even ‘large sums were expended upon naval preparations in time of peace’ (1828, volume 1, 333, 338-9 [book 2 chapters 19-20]).

<sup>16</sup> Parker 1996, 5-7, 92; 2005, 253-4, 317; P. Wilson 2000, 12.

<sup>17</sup> Mikalson details very clearly the distinction between state-supervised festivals, sacrifices and sanctuaries and those of the demes and private groups (2005, 160): ‘We may first distinguish state cults and religious activities from those of a family and village in that they were directed to the welfare of the city-state as a whole, were financed by state revenues, and were open, barring any specific cultic regulations, to all citizens of the city-state and their families. The state at its expense provided through elected, allotted, or appointed officials the sacrificial animals, administered and provided prizes for games, built the temples and other major buildings, and had general oversight over the performance of ritual activities. In Athens the priesthoods of most state cults remained with individual families in the fifth century, but the state had lay commissioners to superintend the property, expenses, and even the timely and appropriate performance of the rituals.’ For the rapid

already have Wilson's total for the City Dionysia, this chapter concentrates on the cost of the Great Panathenaia and on the question of what percentage of the expenditure on the entire program these showcases accounted for. Working out how much war cost is more complex than might be expected. With only a handful of exceptions military historians of classical Athens have shied away from estimating its global cost, because of its great variability between the centuries and from year to year.<sup>18</sup> They have sought to give only a general sense of the scale of public expenditure by detailing the known costs of sieges, recorded recurring spending on particular corps, and their own calculations of the cost of an 'average' armada.<sup>19</sup> In the circumstances a great deal of this chapter is devoted to estimating the range of actual military spending year by year.

Comparing the costs of Athenian festivals and military activity is only possible for the period from 430 to 350 BC. Before the Peloponnesian War the surviving evidence is simply too limited to allow for the reliable estimating of either activity. For the eight decades which this study covers public and private spending on state-sponsored festivals was remarkably stable. Most of the democracy's new festivals were introduced before 460, the number of festival liturgies remained relatively steady during the Peloponnesian War, the final defeat had no discernible impact on what elite citizens spent on these public services, and 'there is little evidence of the Athenians intervening with the way in which major festivals were celebrated in the first half of the fourth century'.<sup>20</sup> This stability enables the generation of cost-estimates of Athenian festivals which hold true from 430 to 350 on the basis of the surviving evidence from across this period. Indeed they would not be possible without this aggregating of data, because what testimonia we have for Athenian religious celebrations is simply too thin and chronologically scattered to support costings of them in a smaller timeframe of, for example, a decade or a quarter of a century. By contrast, military spending varied greatly between 430 and 350. The loss

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but piecemeal expansion of the Athenian democracy's supervision of pre-existing cult from the 470s and the various forms of its financial and administrative oversight, see respectively Ostwald 1986, 137-74 and Aleshire 1994, especially 14-15.

<sup>18</sup> Gabrielsen 1994, 115; Samons 2000, 209; cf. Baldry 1977, 34. The exceptions are Brun 1983, 144-61; Robbins 1918; Unz 1985.

<sup>19</sup> E.g. Gabrielsen 1994, 114-8; Raaflaub 2007, 109; Samons 2000, 207; van Wees 2000, 107-8; cf. Hansen 1991, 316; Kallet 1998, 46.

<sup>20</sup> Quotation from Osborne 2007, 14-15. For the flurry of new festivals in the democracy's first fifty years, see Osborne 1993, especially 27-8. For this stability in liturgical numbers and expenditure, see Christ 2006, 163; P. Wilson 2000, 89-93; 2008, 112.

of one half or more of the citizen-population during the Peloponnesian War and the collapse of the tribute-bearing empire at its close massively reduced the scale of war which Athens could wage in the fourth century.<sup>21</sup> As a consequence this chapter attempts separate costings of military affairs in the later fifth century and in the first half of the next century.

The Athenians made significant changes to their financing of military activity and festivals after 350. In the so-called Social War of 357 to 355 Athens had more ships at sea than at any time since the Peloponnesian War (Diodoros 16.12).<sup>22</sup> The enormous cost of this conflict and the loss of the city's largest allies in the final defeat caused many sources of state revenue to dry up (Xenophon *Ways and Means* 5.12), the annual income of the city to plunge to 130 t. (Demosthenes 10.37), and the economy as a whole to contract (Isokrates 8.19-21).<sup>23</sup> After some years of public and private debate about how best to address this crisis (e.g. Demosthenes 13.1-5), the *dēmos* finally passed, by 349/8 at the latest, the reforms which Euboulos and others had developed (1.19-20; 3.11-13). These redirected any surplus of the city's annual income into a new *theōrikon* or festival fund, whose initial purpose was to provide citizens with the necessary cash to buy entrance to the city's dramatic contests.<sup>24</sup> In spite of the source-confusion Eberhard Ruschenbusch has established that Euboulos' introduction of this payment (which was also known as the *theōrikon*) around 350 'must no longer be called into question'.<sup>25</sup> In the wake of the defeat Athens began recovering remarkably quickly. By 353/2 the scale of its naval expeditions had returned to the level of the 360s, in the late 340s its annual income had bounced back to 400 t. (Demosthenes 10.38), and, once the *theōrikon* had built up sufficiently, Euboulos and the fund's other commissioners introduced participation payments for other city-based festivals and paid directly for shipbuilding and other so-called capital costs of war (e.g. Aiskhines 3.25-6; Deinarkhos 1.96).<sup>26</sup> The reforms of Euboulos, however, significantly changed the city's financing of military activity. As a result,

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<sup>21</sup> For this loss of population, see Akrigg 2007, 29-33; Hansen 1988, 14-18; Pritchard 2005a, 20-1.

<sup>22</sup> Burckhardt 1995, 115, 125; Hornblower 2002, 264-5.

<sup>23</sup> With Cawkwell 1963, 61-2 n.85.

<sup>24</sup> Cawkwell 1963; Hansen 1991, 98, 263-4; E.M. Harris 2006, 121-39; Rhodes 1981, 513-5.

<sup>25</sup> Csapo 2007, 100-3; Ruschenbusch 1979 with the primary sources. Quotation from Ruschenbusch 1979, 308.

<sup>26</sup> The Athenian general, Khares, for example, probably campaigned in the north with a fleet of 30 ships from 353/2 to 346/5, while Athens sent no less than 3 expeditions to aid Olynthos during 349/8 (Burckhardt 1995, 114; Cawkwell 1962a, 130, 139; 1984, 34-5 – all with testimonia). For the scale of Athenian expeditions in the 360s, see part 4 below.

we cannot assume that the capital and fixed operating costs of the armed forces, which can be reliably estimated from the early 370s to the later 350s, stayed the same after 349/8.

These reforms also inaugurated ever-increasing spending by the city and private individuals on state-sponsored festivals. For want of evidence the *theōrika*-payments cannot be reliably costed.<sup>27</sup> But they must have added up to a significant total for Demades to have called them the ‘cement of the democracy’ (Plutarch *Moralia* 1011b). After their crushing defeat at Khaironeia, in 338/7, the Athenian *dēmos* took up the proposals of Lykourgos and other leading citizens for expanding their program of festivals.<sup>28</sup> New festivals and public sacrifices were introduced, existing festivals picked up new *agōnes* (‘contests’) and more sumptuous celebrations every four years, and upper-class priests began spending more out of their own pockets.<sup>29</sup> In light of these discontinuities a comparison of festival-related and military spending after 350 would require new costings. The lacunose state of the evidence in this period and the difficulty of including pre-350 testimonia cast doubt on the feasibility of such estimates. They are certainly beyond the scope of my investigation.

This chapter is divided into five parts. The first calculates on the basis of surviving evidence and arguments from probability estimations of the two classes of private spending on the Great Panathenaia. These are then combined with the documented figures of public spending to produce a suggested global cost of this religious showcase. Part two takes the four standard ritual acts of an Athenian festival one by one, quantifies the scale of their performance at the City Dionysia and Great Panathenaia, and compares this to what was done in the rest of the state-sponsored program of festivals. These comparisons, in turn, suggest a safe minimum for what percentage of overall spending these two celebrations represented. Since Wilson has reliably costed the City Dionysia and part one does the same for Athena’s festival, this final percentage makes possible a cost estimate of the entire program. Part three calculates how much Athens spent every year on its armed forces from 433/2 to 423/2 by combining the surviving figures which we have for public income and war loans. The annual average of these 11 years is used as the measure against which the cost of the subsequent stages of the Peloponnesian War is estimated. Part four draws on extant evidence and probability to estimate the yearly totals of public and private

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<sup>27</sup> Cawkwell 1963, 53-4; Hansen 1991, 315-16.

<sup>28</sup> Osborne 2007, 15.

<sup>29</sup> Humphreys 2004, 77-129; Parker 1996, 242-53.

spending on the Athenian armed forces from 378/7 to 370/69 before considering whether military spending remained at the average level of these 9 years into the 360s. Part five brings together the chapter's various estimates in order to test categorically Boeckh's judgement about the relative costs of Athenian festivals and the reliability of the literary evidence which he and subsequent scholars have cited in its defence. It also considers what this pattern of expenditure might tell us about the public priorities and interests of the classical Athenians.

## 1. The Cost of the Great Panathenaia

The Great Panathenaia was the large-scale version of the city's annual festival in honour of its patron deity, Athena, which was staged every four years. This festival did not mark the goddess' birthday (a misinterpretation going back to the nineteenth century) but celebrated the Gigantomachy and Athena's prominent role in this victory of the Olympians over the Giants (e.g. Aristotle fragment 637 Rose).<sup>30</sup> No other Athenian festival had a larger and more varied program than this four-yearly showcase: there were *agōnes* for individuals in a wide range of athletic, equestrian and musical events and others for choruses and for tribal teams of torch racers, comely young men and sailors.<sup>31</sup> The *pompē* ('procession') of the Great Panathenaia involved thousands of citizens and non-citizens and traversed the heart of the city, conveying the newly made *peplos* or robe for Athena and the so-called hecatomb for the public sacrifice (see part 2 below). The direct costs of these ritual acts were borne by Attic farmers, the public purse and wealthy individuals and were on a par only with those of the City Dionysia.

The winners and placegetters in the sporting events of the Panathenaic games received as prizes finely painted amphorae, ranging in number from a hundred or more for chariot-race victors to only a handful for boys coming third in athletic contests.<sup>32</sup> These amphorae may have had a unique shape and have been especially commissioned for each celebration but they were only the containers of the recognised prize: the materially valuable olive oil which was sacred to Athena (e.g. *Ath. Pol.* 60.1; Pindar *Nemean* 10.33-7).<sup>33</sup> Aristotle explains how, in his day, the oil for the prizes was raised by a general levy on the oil-production of individual farmers on whose plots so-called *moriai* or sacred olive trees grew, whereas, in earlier times,

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<sup>30</sup> Shear 2001, 29-38 with primary sources *pace* Neils 1992a, 14-15.

<sup>31</sup> Kyle 1987, 33-9, 178-95; 1992; Shear 2001, 231-387.

<sup>32</sup> Johnston 2007.

<sup>33</sup> Shear 2003a, 98.

it was collected directly from the sacred trees by entrepreneurs who had bought from the democracy the right to do so at a profit (*Ath. Pol.* 60.2; Lysias 7.2).<sup>34</sup> For the Athenians these trees were offshoots of the world's first olive tree which Athena had planted on the Akropolis (e.g. Euripides *Trojan Women* 802).<sup>35</sup> They were found on 'many' plots of farmed land right across Attike (Lysias 7.7, 24-5, 29).<sup>36</sup> The annual levy in Aristotle's day was overseen by the eponymous archon, who handed over the oil so acquired to the treasurers of Athena (*Ath. Pol.* 60.3).<sup>37</sup> In turn the treasurers stored the sacred oil on the Akropolis until just before each celebration of the four-yearly festival, when they measured it out to the so-called *athlothetai*. This last board of magistrates is first attested for the 440s (Plutarch *Perikles* 13.11) and had become the chief administrators of the Great Panathenaia by 415/4 at the latest (*IG I<sup>3</sup>* 370.66-8).<sup>38</sup> Aristotle explains (*Ath. Pol.* 60.1): '...they hold office for four years: they administer the procession at the Panathenaea, and the musical contests, the athletic contests and the horse race; they are responsible for making the robe, and together with the council for the making of vases, and they present the olive oil to the winning athletes.'<sup>39</sup>

For this festival we have a fragmentary list of events and prizes for victors and placegetters (*IG II<sup>2</sup>* 2311), which is dated, on epigraphical grounds, to the 380s.<sup>40</sup> Julia Shear builds a strong case that its publication, the recording of the eponymous archon's name on Panathenaic amphorae, which manifestly begins around 380, and the means of levying oil outlined by Aristotle were part of a general reform of the procuring of the festival's prizes, which took place sometime in the 380s.<sup>41</sup> Drawing on what is an unsurpassed collection of testimonia concerning the Panathenaia and first-hand knowledge of the stone, Shear proposes a convincing restoration of this prize-list, which includes the full program of attested events at Panathenaic

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<sup>34</sup> Rhodes 1981, 672-4; Shear 2003a, 96-102.

<sup>35</sup> For the testimonia, see Parker 1987, 198-9; Shear 2001, 405.

<sup>36</sup> With Hanson 1998, 143-7, 157-61, 236-7.

<sup>37</sup> Contrary to what Aristotle and Lysias imply, the collection of olive oil and the production of amphorae certainly did not take place in every year of the Panathenaic quadrennium, as the surviving prize pots of the mid-fourth century never record the name of the eponymous archon of the first year of this four yearly cycle (Valavanis 1997, especially 87).

<sup>38</sup> Shear 2001, 455-63.

<sup>39</sup> Translated by Rhodes.

<sup>40</sup> For a photograph of its two fragments, see Neils 1992a, 16, fig. 1.

<sup>41</sup> Shear 2001, 407; 2003a, 103.



celebrations of the early fourth century and most of its prizes.<sup>42</sup> The surviving portion of this inscription mentions 819 amphorae, to which, she plausibly argues, we can add with reasonable certainty another 628 for the men's athletic contests, adding up to 1447 prize amphorae.<sup>43</sup> Shear continues: '...rough extrapolation from the preserved prizes for the hippic competitions suggests that the total number of vases...certainly exceeded 2,000, perhaps by as much as 100 or 150 vessels.'<sup>44</sup>

Scholars have traditionally assumed that the Panathenaic amphora held one metretres or twelve choes.<sup>45</sup> The metretres and chous were standard liquid measures of the Athenians and equivalent to 39.40 and 3.28 litres respectively.<sup>46</sup> In his reappraisal of this vessel from the sixth to the fourth centuries Martin Bentz tests this assumption by measuring the capacity of seventy-one surviving prizes, which, as the condition of many amphorae precludes the use of liquid, happens to be the most thorough study of this question to date.<sup>47</sup> Bentz establishes that Panathenaic prizes cluster closely around an average volume of 36.73 litres, which points strongly to the goal of filling each pot with one chous short of a metretres.<sup>48</sup> However, even if Athena's treasurers only measured out eleven choes for each amphora, the filling of 2100 of them would have required an extraordinary 1925 metretres or 75,845 litres of olive oil. Although this oil was raised through a general tax-in-kind and not by purchase on the open market, estimating as best as we can its monetary value gives us a clearer idea of how much Attic farmers contributed to the Great Panathenaia. Due to the great variability in olive-harvests and war-related disruptions of inter-city trade, the cost of oil in classical Greece varied greatly, with recorded prices ranging from 12 dr. per metretres to several times this figure.<sup>49</sup> A 'more common price' was probably between 16 to 18 dr., which represents the stable range of prices from the

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<sup>42</sup> Her dissertation collects the archaeological, epigraphical and literary evidence for the millennium-long history of this festival (Shear 2001). For her new edition of the extant text of *IG II<sup>2</sup> 2311* and her restorations of its lacunae, see Shear 2003a, 88-9 and 103-5 respectively.

<sup>43</sup> Shear 2003a, 102. Her figures find some corroboration in Johnston's earlier study of *IG II<sup>2</sup> 2311*, which came up with a 'possible minimum figure' of 1423 prize amphorae (1987, 129).

<sup>44</sup> Shear 2003a, 102.

<sup>45</sup> E.g. Neils 1992b, 39; Pritchett 1956, 195; Valavanis 1986, 455; Young 1984, 116.

<sup>46</sup> Bentz 1998, 34; Pritchett 1956, 182.

<sup>47</sup> Bentz 1998; cf. Shear 2003a, 101-2.

<sup>48</sup> Bentz 1998, 31-40, 200-1.

<sup>49</sup> See Pritchett 1956, 184; Valavanis 1986, 455 n.13; Young 1984, 116 n.13 – all with testimonia.

mid-third century onwards.<sup>50</sup> On the basis of 17 dr. per metretes we can cost the private contribution of Attic farmers to the staging of this festival at 5 t. 2725 dr.

Additionally the Athenian *dēmos* authorised the spending of reasonably significant sums of public money on this four-yearly festival (e.g. *IG I*<sup>3</sup> 375.3). For example, in 410/9 the treasurers of Athena handed over 5 t. and 1000 dr. to the *athlothetai* for the year's celebration of the Great Panathenaia and a further 5114 dr. to the *hieropoioi* to pay for its regular sacrifice of one hundred cows (375.5-8). According to earlier surviving accounts (370.66-8), in 415/4 Athena's treasurers gave 9 t. 'to the *athlothetai* for the Panathenaia'. While this sum was disbursed within days of the so-called Small Panathenaia, it is far from likely that it went towards covering the costs of this annual version of the festival.<sup>51</sup> Firstly the absence of *megala* ('great') in this entry does not rule out the four-yearly Panathenaia, as this adjective was regularly omitted in descriptions of the large-scale versions of annual festivals where it would, in fact, have been entirely appropriate (e.g. *IG II*<sup>2</sup> 3022.3-4).<sup>52</sup> In addition the *athlothetai* are not otherwise attested as administering any aspect of the annual Panathenaia until the late second century (e.g. *IG II*<sup>2</sup> 1036, 1060).<sup>53</sup> Finally what evidence we have for the public funding of this festival renders its consumption of such a large sum highly unlikely. In the mid-330s the Athenians created a stronger fiscal base for the smaller Panathenaia by assigning to the *hieropoioi* responsible for its administration the rent from newly acquired sacred lands, which, it was optimistically hoped, would amount to 2 t.<sup>54</sup> The actual rent may have only come to 4100 dr. but it was still sufficient to cover the festival's costliest item: the sacrificial cows for its procession.<sup>55</sup> In addition the *dēmos* approved another 30 dr. to pay for the procession's other expenses and the *pannukhis* or all-night celebration.<sup>56</sup> Clearly the annual Panathenaia was a 'relatively small affair'.<sup>57</sup> As Athens in this period of expanding festival funding was contributing less than a talent towards this yearly version of the festival, its spending of over ten times this figure for the same purpose

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<sup>50</sup> So described by Golden 1998, 165.

<sup>51</sup> Davison 1958, 31-3; Develin 1984, 133, 136-7; Kyle 1987, 38 n.31; Shear 2001, 456-8 *pace* Golden 1998, 164-5; Meiggs and Lewis 1969, 236; Rhodes 1981, 669-70.

<sup>52</sup> Develin 1984; Slater 2007, 32.

<sup>53</sup> Shear 2001, 462.

<sup>54</sup> Rhodes and Osborne 2003, no. 81, especially fragments A.5-7 and B.1-4. This rent is more likely to have replaced rather than supplemented what the city had been spending on this festival (Rhodes and Osborne 2003, 398-403; Shear 2001, 76-83 *pace* Rosivach 1994, 70-2).

<sup>55</sup> Rhodes and Osborne 2003, no. 81, fragment B.10-18, 23.

<sup>56</sup> Rhodes and Osborne 2003, no. 81, fragment B.27-37.

<sup>57</sup> Tracy 2007, 57.

eighty years earlier is simply inconceivable. Therefore the most plausible explanation of these 9 t. is that they were given out to pay for the expenses that the *athlothetai* were accruing as they prepared for the Great Panathenaia of the following year. Boards of these magistrates appear then to have received two or possibly more transfers of funds from Athena's treasurers during their four-year terms. In light of the two surviving figures we have for these transfers, this suggests the city most probably contributed between 10 and 15 t. (and possibly more) of public funds towards each celebration of the Great Panathenaia.<sup>58</sup>

In view of the lacunose state of the evidence a complete breakdown of how the *athlothetai* spent this large sum is difficult to work out and is beyond the scope of this chapter. However, several of the more expensive items which they had to cover can be identified and estimated more or less reliably. For example, while Attic farmers provided the olive oil for the Panathenaic prizes, the *athlothetai* and council of five hundred provided the amphorae needed for its distribution (*Ath. Pol.* 60.1). At a public auction of 414, ten lots of ten second-hand Panathenaic amphorae were sold, fetching just over 3 obols per vessel on average (*IG I*<sup>3</sup> 422.41-60). As the highest recorded price for a finely painted pot is 3 dr. for a hydria and a 'very good' lekythos, which is a very small pot, might cost 1 obol (Aristophanes *Frogs* 1236), a safe estimate for a newly made Panathenaic amphora would be 1 dr. 3 obols.<sup>59</sup> Thus the purchasing of the 2100 pots required for the games would have cost 3150 dr.<sup>60</sup> The prize-list of the early fourth century details other contests whose prizes were not oil but cash-purses, bullion-crowns and/or cows. Thus winners and placegetters among tribal teams and pyrrhic choruses won cows or other banqueting supplies of a set amount, costing the city 1200 dr. in total (*IG II*<sup>2</sup> 2311.83-93).<sup>61</sup> This list also records prizes of gold crowns and cash awards for winners and placegetters in the musical *agōnes*, totaling 5200 dr. (5-22). Shear's restoration of *IG II*<sup>2</sup> 2311 includes the tribal equestrian event of the *anthippasia* and contests for cyclic choruses, rhapsodes and boys singing to the accompaniment of a flute or playing a *kithara*.<sup>62</sup> Although she does not estimate the prizes for these events, comparison with the list's known prizes and the high prestige of the rhapsodic contest suggest that these may have cost the

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<sup>58</sup> The actual amount of the third known transfer is not preserved (*IG I*<sup>3</sup> 378.14-15). P. Wilson likewise writes of the *athlothetai* 'regularly' receiving 'sums in the region of ten talants to administer the festival' (2008, 90).

<sup>59</sup> For the recorded prices for finely painted pots, see Pritchard 1999b, 7 with references.

<sup>60</sup> Pace Tiverios 2007, 16-17.

<sup>61</sup> Ceccarelli 2004, 94 n.9 pace Neils 1992a, 16.

<sup>62</sup> Shear 2003a, 103-5.

city up to 1 t. (e.g. Plato *Ion* 535e4-6). As the average of the recorded prices for a cow in classical Athens is 72 dr., another 1 t. 1200 dr. of public funds would have been required to cover the festival's hundred-cow sacrifice.<sup>63</sup> Finally the *athlothetai* had to pay for the preparations for, and equipment of, the festival's *pompē*. For such expenses the city of the later fourth century gave 1 t. 4000 dr. to the *epimeletai* ('supervisors') in charge of the procession of the City Dionysia (*Ath. Pol.* 56.4; cf. Demosthenes 21.15). The *pompē* of the Great Panathenaia was always as grand (see below) and involved two expenses which the supervisors of the City Dionysia never faced: the setting up of *ikria* or wooden stands for spectators in the *agora* and the making of the *peplos* (*Ath. Pol.* 60.1), which was, by all accounts, 'an elaborate gift for Athena'.<sup>64</sup> As a result, this ritual act of the Great Panathenaia may have cost the city in excess of 2 t.

In addition some of the direct costs of the festival were borne by wealthy citizens who volunteered or were conscripted, if necessary, to cover the training and equipping of its choruses and tribal teams.<sup>65</sup> The performing of these so-called festival liturgies brought significant personal advantages: victory gave the *chorēgos* ('chorus-sponsor') and the *gumnasiarkhos* ('athletic-training-sponsor') of a torch race city-wide prestige, which could be cashed out as political support from the citizen masses (e.g. Plutarch *Nikias* 3.1-3).<sup>66</sup> In addition generosity and success as a liturgist served as a kind of legal insurance. In court upper-class litigants invariably sought to build up *kharis* ('a sense of gratitude') among the jurors by cataloguing the festival and military liturgies which they had undertaken for the city (e.g. Lysias 3.46; 12.38; 30.1).<sup>67</sup> Some even admitted their main reason for performing these public services in the first place had been to secure leniency from any prospective jury (e.g. 18.23; 20.31; 25.11-13).

It is therefore unsurprising that most of the figures we have for liturgical spending come from such a speech; for the speaker of Lysias 21 opened his defence

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<sup>63</sup> Rosivach 1994, 95-6; Tracy 2007, 54 – both with testimonia.

<sup>64</sup> For these stands for spectators, Athenaios 4.167f; Pollux 7.125; Csapo 2007, 104-5; Neils 1992a, 18-20. Postholes dating to the fifth and fourth centuries for these wooden benches have been excavated on both sides of the Panathenaic Way as it traverses the marketplace (Camp 1986, 45-7). For the testimonia for Athena's robe, see Shear 2001, 173-86. Quotation from Shear 2001, 176.

<sup>65</sup> Pritchard 2004, 213, 213 n.27 with primary sources.

<sup>66</sup> See especially P. Wilson 2000, 109-97. For the *gumnasiarkhos* as the sponsor of a torch-racing team, see, for example, Pseudo-Xenophon 1.2; Xenophon *Ways and Means* 4.51-2; *IG II*<sup>2</sup> 1250.3, 3019, 3023.

<sup>67</sup> Christ 2006, 171-84; Dover 1974, 176-7; Ober 1989, 231-3 – all with primary sources.

against a charge of financial misconduct as a magistrate by costing his own liturgies.<sup>68</sup> Certainly his ‘liturgical career is unique in its intensity’: from 411/10 to 404/3 he paid for 17 liturgies at a combined cost of nearly 10 t.<sup>69</sup> Importantly however, while no other individual is known to have performed as many public services, the amounts that he spent on individual liturgies do not appear to have been out of the ordinary.<sup>70</sup> For example, for each of the years he served as a trierarch he spent 5163 dr., which is very close to the average of the surviving figures for this military liturgy and is by no means the highest of them.<sup>71</sup> Likewise, the 3000 dr. which this speaker paid for a tragic chorus, in 411/10, parallels the 5000 dr. another spent performing the same liturgy twice in the late 390s (Lysias 19.24, 42; 21.1). In view of the crises the city weathered during these years, the comparability of these costs – in addition to the stable liturgical spending of Lysias 21 – is quite remarkable.<sup>72</sup> They bear out the ‘overriding importance’ that the Athenians placed in honouring their deities and suggest an underlying stability in festival-related spending during this tumultuous period of Athenian history.<sup>73</sup> As they appear to be unexceptional, the amounts of money the speaker of Lysias 21 expended as a liturgist can be safely used for estimating private spending on the Great Panathenaia’s choruses and teams.

The full program of these contests for groups is securely attested for the 380s; for although a reasonably sized portion of the section of *IG II<sup>2</sup> 2311* detailing these events and their prizes has not survived, enough external evidence exists for restoring these missing lines. In classical Athens the most popular of the tribally organised contests was clearly the torch race (e.g. Aiskhylos *Agamemnon* 312-4; Aristophanes *Frogs* 1087-98).<sup>74</sup> By the early fourth century this event had long been part of both versions of the Panathenaia and the yearly festivals for Hephaistos and Prometheus

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<sup>68</sup> Csapo and Slater 1994, 146-7; P. Wilson 2000, 89-93.

<sup>69</sup> Quotation from Csapo and Slater 1994, 146.

<sup>70</sup> Davies 1971, xxi-ii; P. Wilson 2000, 92; 2008, 112.

<sup>71</sup> Christ 2006, 146-7; Gabrielsen 1994, 124-5; Phillips 1981, 47, table 5. These figures are 6000 dr. (Demosthenes 21.155), 5300 dr. ([Demosthenes] 50), 7 trierarchies at 5143 dr. each (Lysias 21.2), 4800 dr. (32.24, 27), 3 trierarchies at 2666 dr. each (Lysias 19.29, 42), and 2000 dr. (Demosthenes 21.80). *Pace* Gabrielsen 1994, 120-1 the mean of these 14 figures is 4436 dr.

<sup>72</sup> For example, the speaker of Lysias 21 spent 2000 dr. on a men’s chorus for the Thargelia of 411/10 and more than 1500 dr. for a boys’ chorus at the same festival in 404/3 (1, 4). Similarly a pyrrhic chorus at the Great Panathenaia cost him 800 dr., in 410/9, and 700 dr. at the Small Panathenaia of 404/3.

<sup>73</sup> Quotation from P. Wilson 2000, 91; cf. Gabrielsen 1994, 177-8.

<sup>74</sup> Even though the *lampadēphoroi* (‘torch racers’) were drawn only from the upper class (Pritchard 2003, 299, 328).

(e.g. *IG* I<sup>3</sup> 82.31-5; II<sup>2</sup> 2311.88-9).<sup>75</sup> The painters of the city's pots depicted no other athletic event in as much detail as they did the torch race.<sup>76</sup> As was the case with two other of his festival liturgies, the speaker of Lysias 21 did serve as a *gumnasiarkhos* but only for a team of torch racers which competed at another festival. Victorious liturgists at the four-yearly Panathenaia certainly won much greater prestige, which they assiduously publicised (e.g. [Andokides] 4.42; *IG* II<sup>2</sup> 3019, 3022), than those who succeeded in the same events at other religious celebrations. This means that the chorus- and athletic-training sponsors of Athena's festival were probably willing to spend more than they would doing the same for other gods.<sup>77</sup> As a consequence the 1200 dr. that the speaker of Lysias 21 devoted to the torch race of the Promethia serves as a good minimum figure for this liturgy at the Great Panathenaia.

For the victorious tribe in the *hamilla neōn* or ship-race the prize-list of the early fourth century records as prizes 300 dr. for 3 cows and another 200 dr. for a feast (*IG* II<sup>2</sup> 2311.90-2).<sup>78</sup> These are worth five times more than the prizes for the other group events (84-9), which suggests that those competing in this ship-race were considerably more numerous than the competitors in the choral and other team events. This, along with the fact that *naus* strictly denotes a ship of war (e.g. Xenophon *Hellenika* 5.4.34-5), points to the use of triremes for this event in the Panathenaic games.<sup>79</sup> If this is correct, Lysias 21 provides a minimum cost for readying such a crew for competition: the speaker spent 1500 dr. competing (*hamillōmenos*) with a trireme at Sounion (5).<sup>80</sup> Another well-attested event of the Panathenaic games of this period is the *anthippasia*, which saw the tribal corps of the city's cavalymen charge each other in a mock battle.<sup>81</sup> Liturgical funding was probably not required for this equestrian event, since training for, and participation in, the *anthippasia* were a regular part of cavalry service (Xenophon *Cavalry-Commander* 3.1, 10-14), while its victory monuments were set up by the winning tribe or the commander of its cavalry unit (e.g. *IG* II<sup>2</sup> 3130).<sup>82</sup>

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<sup>75</sup> Davies 1967, 35-7; Kyle 1987, 190-3. For its staging at the Panathenaic games, see Kyle 1987, 190-1; 1992, 96; Shear 2001, 335-9. We have no evidence that the torch race at the festival of Pan was tribally organised or liturgically funded (Parker 1996, 163-8; 2005, 477).

<sup>76</sup> Bentz 2007.

<sup>77</sup> Christ 2006, 179.

<sup>78</sup> Kyle 1987, 193-4; 1992, 97; Shear 2001, 339-40.

<sup>79</sup> Shear 2001, 340.

<sup>80</sup> That this ship-race took place at Sounion rules out any possible association with the Great Panathenaia (Kyle 1987, 194; Shear 2001, 340 n.471 *pace* Davies 1967, 39; P. Wilson 2000, 48).

<sup>81</sup> Shear 2001, 340-5; 2003a, 91 n.11; Kyle 1987, 189-90; 1992, 94.

<sup>82</sup> Agora excavations, inv. nos. I 7167, I 7515. For these monuments, see Goette 2007, 120-2.

The *purrhikhē* was an event for choristers wearing a hoplite helmet and bearing a spear and shield, which, the Athenians believed, their city-protecting goddess had invented as part of the celebration of the victory over the Giants (e.g. Aiskhylos *Eumenides* 292-6).<sup>83</sup> At the Great Panathenaia of the 380s there were separate contests in the pyrrhic chorus for three age-classes (*IG II<sup>2</sup>* 2311.84-6). Its *chorēgiai* or chorus-sponsorships cost 800 dr. (Lysias 21.1). The festival probably also sported dithyrambic contests as was the case at its smaller celebration (Lysias 21.2; Pseudo-Xenophon 3.4).<sup>84</sup> Certainly there would have been enough space in the prize-list's lost portion to detail prizes for this second set of choruses.<sup>85</sup> Two age-classes rather than the three of the *purrhikhē* are more likely for this event, as separate contests for 'boys' and 'men' are securely attested for the dithyramb at the City Dionysia and Thargelia (e.g. *Ath. Pol.* 56.3; *IG II<sup>2</sup>* 1138). A minimum cost for this liturgy is the 300 dr. which the speaker of Lysias 21 spent on the same event at the Small Panathenaia of 409/8 (2).

Shear defends the common assumption that the Kleisthenic tribes each entered choruses in the pyrrhic contests.<sup>86</sup> She argues for such a tribal organisation on the grounds that this event appears on the early-fourth-century list of prizes under the same heading as the *euandria* and the torch race (*IG II<sup>2</sup>* 2311.83) and the prizes for these last two events are described as being 'for the winning tribe' in lines 87 to 89.<sup>87</sup> For her the absence of a comparable description in the lines concerning the armed chorus (84-6) is due only to a lack of space on the stone. As none of the other testimonia for the *purrhikhē*'s organisation mentions tribes (Isaios 5.36; Lysias 21.2, 4; *IG II<sup>2</sup>* 3025, 3026; *SEG* 23.103), others strongly doubt any such tribal arrangement.<sup>88</sup> Paola Ceccarelli's comments are especially damaging: 'While it may be possible to find an *ad hoc* explanation for the failure of every one of these documents to mention a tribe in connection with pyrrhic competitions, the only comprehensive explanation is to assume that they were not organized on a tribal

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<sup>83</sup> For this mythology, see Shear 2001, 38-42 with primary sources. For the event, see Kyle 1992, 94-5; Shear 2001, 323-31; and especially Ceccarelli 2004.

<sup>84</sup> Davies 1967, 37; Shear 2001, 345-8; P. Wilson 2000, 40. Shear 2003b make a strong case that the choral victory commemorated by *IG II<sup>2</sup>* 3025 was not associated with the annual Panathenaia.

<sup>85</sup> Shear includes this event and the *anthippasia* in her restoration of *IG II<sup>2</sup>* 2311 (2003a, 91, 103-5).

<sup>86</sup> E.g. Bentz 2007, 73; Kyle 1992, 94.

<sup>87</sup> Shear 2001, 322; 2003a, 90, 90 n.7.

<sup>88</sup> E.g. Ceccarelli 2004, 95-9; Davies 1967, 36-7; Pritchard 2005b, 151 n.47; P. Wilson 2000, 37, 324 n.137.

basis.<sup>89</sup> The same objection can be made against the assumption that the dithyrambos of the Small and Great Panathenaia were also organised by tribes.<sup>90</sup> The ancient testimonia do not mention tribes (Lysias 21.2; Pseudo-Xenophon 3.4).

We are forced then to estimate the number of required liturgies for the *purrrhikhē* and cyclic choruses, as we have no reason to believe that they were organised by tribes and otherwise lack any direct evidence for their number. Tellingly the Athenian people took note of how pyrrhic *chorēgoi* performed: jurors apparently had significantly less *kharis* for a sponsor when they knew his choristers had come dead last (Isaios 5.36), whereas a winner could be publicly honoured and praised for performing his liturgy ‘well and with zeal’ (e.g. *SEG* 34.103.2-8). Sponsors of the *purrrhikhē* also thought winning worth publicising by commissioning their own victory monuments (e.g. *IG* II<sup>2</sup> 3025, 3026; *SEG* 23.103).<sup>91</sup> All of this suggests that victory was far from assured: individual sponsors and their pyrrhic choristers faced real competition when they competed in their age-class. Therefore it is likely that the number of choruses and hence *chorēgoi* in a pyrrhic contest never fell below three.<sup>92</sup> This also seems a safe minimum for the dithyrambic event (Plutarch *Moralia* 842a).<sup>93</sup>

A different type of estimate is needed for calculating private spending on the *euandria* or manliness contest (*Ath. Pol.* 60.3; Athenaios 565f; *IG* II<sup>2</sup> 2311.87). Although this last team event of the Great Panathenaia of the 380s was certainly organised by tribes and hence required ten upper-class sponsors, we do not have recorded figures for this festival liturgy nor, for that matter, enough evidence to reconstruct what this *agōn* actually entailed.<sup>94</sup> Fortunately however, a pointer to the relative cost of training this tribal team exists: those of its liturgists who had won happily publicised their victories, putting them on a par with their successes as *gumnasiarkhoi* ([Andokides] 4.42; *IG* II<sup>2</sup> 3022).<sup>95</sup> This implies that the costs of these tribal liturgies were at least of a similar scale. Since the lowest figure we have for a festival liturgy is 300 dr. (Lysias 21.2) and the only one for a torch-race is 1200 dr. (3-4), a cautious estimate for preparing a team for the *euandria* might be 800 dr., which is also the cost of a pyrrhic chorus at the Great Panathenaia (1). On the basis of

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<sup>89</sup> Ceccarelli 2004, 97.

<sup>90</sup> E.g. Parker 2005, 257; Shear 2003a, 91.

<sup>91</sup> Goette 2007, 123-5.

<sup>92</sup> Davies 1967, 37; P. Wilson 2000, 37.

<sup>93</sup> With Parker 1996, 246 n.100; 2005, 479.

<sup>94</sup> Crowther 1985; Kyle 1992, 95-6; Shear 2001, 331-4; P. Wilson 2000, 38.

<sup>95</sup> Goette 2007, 118-9.



the numbers and costings of liturgies we have worked out, the total of this spending by wealthy individuals comes to 7 t. 2000 dr.

<b>Table 1: The Cost of the Great Panathenaia</b>	
Public Expenditure	12 t. 3000 dr.
Market Value of the Olive Oil for the Prizes	5 t. 2725 dr.
Festival Liturgies	7 t. 2000 dr.
10 <i>gumnasiarkhiai</i> for the torch race at 1200 dr. each = 2 t. 10 liturgies for the boat-race at 1500 dr. each = 2 t. 3000 dr. 9 <i>chorēgiai</i> for the pyrrhic choruses at 800 dr. each = 1 t. 1200 dr. 6 <i>chorēgiai</i> for the cyclic choruses at 300 dr. each = 1800 dr. 10 liturgies for the <i>euandria</i> at 800 dr. each = 1 t. 2000 dr.	
<b>TOTAL</b>	<b>25 T. 725 DR.</b>
<b>ANNUAL COST</b>	<b>6 T. 1681 DR.</b>

Table 1 summarises my costings of the Great Panathenaia in the 380s. Interestingly my estimates of the global cost of this festival and the proportion of it which was covered by private funds are comparable to what Wilson has recently established for the City Dionysia: the contributions of Attic farmers and upper-class liturgists to Athena's festival accounted for around half of the global cost of 25 t. 725 dr. Thus our independent estimates of the two major festivals of classical Athens provide corroboration for each other. Over each four-year period combined public and private spending on the Great Panathenaia was, on average, 6 t. 1681 dr. per year.

## 2. The Cost of the Full Program of State Festivals

Classical Athens administered and financed many other religious celebrations: it regularly held contests and public sacrifices throughout the year (Isaios 9.21; Isokrates 7.29; Lysias 30.19-20; Thoukydides 2.38.1), apparently staging more festivals than any other Greek city (Pseudo-Xenophon 3.2; cf. Aristophanes *Clouds* 307-10).<sup>96</sup> The scale of this religious activity is illustrated by the so-called *dermatikon*-accounts, which record the income the city gained from the sale of the

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<sup>96</sup> Ober 2008, 195-6; Pritchard 2009, 212-16.

hides of cows publicly sacrificed between 334/3 and 331/0.<sup>97</sup> For each year these accounts run through 16 festivals and sacrifices, listing the proceeds of hide-sales after each celebration (*IG II<sup>2</sup>* 1496.68-151). Since we have reliable figures for the average costs of a cow and its hide (see above), these accounts also provide a solid platform for calculating how much Athens in the later fourth century spent on public sacrifices and the percentage of this figure which the City Dionysia and Great Panathenaia accounted for.<sup>98</sup> Unfortunately the sale-figures for the Panathenaia, the annual festival of the Eleusinia and the sacrifice to Hermes Hegemonios are lost or incomplete.<sup>99</sup> For the Small Panathenaia there is a contemporary inscription which (as we have seen) authorises the spending of 4100 dr. on its major sacrifice.<sup>100</sup> This would have paid for 57 cows, while the hundred-cow sacrifice of the Great Panathenaia is securely attested.<sup>101</sup> As the latter was the elaborate version of the festival which was celebrated every four years, these sacrifices should be averaged over the quadrennium to allow for comparison with the other celebrations of the *dermatikon*-accounts, which were staged annually. In the absence of evidence for the size of public sacrifices at Eleusis and for Hermes Hegemonios we can use for these two celebrations only the average size of attested public sacrifices. Table 2 details the results of my calculations: Athens of the 330s spent 15 t. 5902 dr. publicly sacrificing some 1332 cows each year, of which the sacrifices of the City Dionysia and Great Panathenaia represented only 8 percent.<sup>102</sup>

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<sup>97</sup> Humphreys 2004, 85, 94; Parker 2005, 180; Rosivach 1994, 48-60.

<sup>98</sup> The average price of a cow-hide in classical Athens was probably 7 dr. This is the mid-point of the range of 4 to 10 dr. Rosivach establishes (1994, 62-3) and dovetails with the 6 to 7 dr. which Jameson works out on the basis of classical and late-antique evidence (1988, 107-12). Rosivach compiles the sales-figures of these accounts for each celebration (1994, 50-3). Where more than one sale-figure for a festival survives my calculations employ their average.

<sup>99</sup> In spite of its different scale from year to year the Eleusinia was celebrated annually (Parker 2005, 468-9).

<sup>100</sup> Rhodes and Osborne 2003, no. 81, fragment B.16-17, 23-4.

<sup>101</sup> Shear 2001, 167-73 with testimonia.

<sup>102</sup> This percentage sinks lower if we factor in the 500 she-goats the city sacrificed to Artemis Agrotera every year (*Ath. Pol.* 58.1; Aristophanes *Knights* 659-62; Xenophon *Anabasis* 3.2.12) and the large number of cows it bought for the four-yearly festival on Delos (*Ath. Pol.* 54.7; *IG II<sup>2</sup>* 1635.35-6). Against this the sacrifice of the City Dionysia was probably larger than these accounts suggest, because the sale-figure of 306 dr. it records for 333/2 (*IG II<sup>2</sup>* 1496.111-12) is 'surprisingly low' in comparison to the 808 dr. of 334/3 and 'those for other major festivals elsewhere on the calendar' (Rosivach 1994, 52 n.109; cf. Csapo and Slater 1994, 113).

**Table 2: Annual Figures for Public Sacrifices in the 330s**

Celebration	Skin-Sales	Cows	Cost
Sacrifice to <i>Eirēnē</i>	794 dr.	113	1 t. 2136 dr.
Panathenaia	–	43	3096 dr.
Great Panathenaia	–	25	1800 dr.
Eleusinia	–	84	1 t. 48 dr.
Sacrifice to <i>Dēmokratia</i>	414 dr.	59	4248 dr.
Epidauria	1000 dr.	143	1 t. 4296 dr.
Theseia	1183 dr.	169	2 t. 168 dr.
Dionysia of the Piraeus	311 dr.	44	3168 dr.
Lenaia	106 dr.	15	1080 dr.
Sacrifice to <i>Agathē Tukhē</i>	131 dr.	19	1368 dr.
Asklepieia	284 dr.	41	2952 dr.
City Dionysia	557 dr.	80	5760 dr.
Olympieia	601 dr.	86	1 t. 192 dr.
Sacrifice to Hermes Hegemonios	–	84	1 t. 48 dr.
Bendideia	457 dr.	65	4680 dr.
Sacrifice to Zeus the Saviour	1831 dr.	262	3 t. 864 dr.
<b>TOTALS</b>		<b>1332</b>	<b>15 T. 5902 DR.</b>

The *dermatikon*-accounts may be a valuable indication of the extent of the city's religious activities but they do not tell us what proportion of the global cost of festivals and public sacrifices the two major festivals accounted for. Manifestly the relative spending on the City Dionysia and Great Panathenaia from 430 to 350 was very much higher than 8 percent. Two of the public sacrifices which this inscription mentions may have been recent additions to the festival-program, while its first celebration for Dionysos, namely the Dionysia of the Piraeus, cannot be part of our calculations (*IG* II<sup>2</sup> 1496.70-3).<sup>103</sup> This last festival – like other celebrations of the Rural Dionysia (e.g. *IG* I<sup>3</sup> 254; II<sup>2</sup> 1206) – was administered and funded primarily by the deme and hence was not strictly speaking a *polis*-level celebration.<sup>104</sup> Importantly,

<sup>103</sup> The sacrifices for Good Fortune and Hermes Hegemonios are first attested in this inscription and hence may have been introduced by the expansion of the festival-program which Lykourgos and others supported after the mid-330s (Parker 1996, 231-2, 238 n.72; 2005, 456, 473).

<sup>104</sup> E.g. Csapo and Slater 1994, no. 141. Csapo 2007, 90-5; Hall 2007, 271; Pickard-Cambridge 1988, 42-7; P. Wilson 2007 – all with ancient testimonia.

the standard ritual acts of an Athenian festival were of course the *thusia* ('sacrifice'), *pompē*, *agōnes* for choruses and tribal teams, and other competitions for individuals.<sup>105</sup> Yet a god is honoured by a *thusia* alone in four of the inscription's examples of worship, which would have been cheaper than a full-blown festival.<sup>106</sup> Moreover, these other ritual acts regularly cost more than the sacrifice, while the amounts that they consumed at the City Dionysia and Great Panathenaia were disproportionate to the rest of the festival program.<sup>107</sup>

Certainly the *pompai* of these two festivals were the most elaborate and costly of the dozen or so which the city staged.<sup>108</sup> Among their thousands of participants were groups representing citizens of different ages, metics and women, each of whom carried distinct ritual equipment, military and civilian magistrates, delegates of the demes and private individuals.<sup>109</sup> In the Great Panathenaia hoplites and probably the entire cavalry processed as well (Thoukydides 6.56.2; Xenophon *Cavalry-Commander* 3.1-2).<sup>110</sup> During the fifth century it was only to these processions that Athens ordered its allies and colonists to send delegates, bearing a cow and hoplite-panoply for Athena and *phalloi* for Dionysos (e.g. *IG I<sup>3</sup>* 14.2-8; 34.41-3; 46.15-17; 71.55-8).<sup>111</sup> The city spent several talents equipping and staging these ritual acts (see part 1 above). That they had a different order of magnitude to the other *pompai* is shown by their unique administration: the procession of the City Dionysia was administered by the eponymous archon and a dedicated board of supervisors (*Ath. Pol.* 56.3-4; Demosthenes 23.15) and that of the Great Panathenaia by city-based *athlothetai* (e.g. *Ath. Pol.* 60.1-3; *IG I<sup>3</sup>* 378.14-15).<sup>112</sup> This last board of ten magistrates began its preparations four years in advance of the Panathenaic games and managed as well the contests, the making of prizes and Athena's robe and the

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<sup>105</sup> Bruit Zaidman and Schmitt Pantel 1992, 102-8; Parker 2005, 180-3; Phillips and Pritchard 2003, xi-xii; cf. Slater 2007, 21-2.

<sup>106</sup> This applies to four of the five instances where the accounts record a '*thusia*' for a deity (*IG II<sup>2</sup>* 1496.76-7, 84-5, 94-5, 106-7, 115-6, 127-8, 131-2, 140-1). The sacrifice to Zeus Sōtēr is the exception (88-9, 118-9), as his worship included a *pompē* (Parker 2005, 466-7).

<sup>107</sup> Boeckh 1828, volume 1, 281 (book 2 chapter 12).

<sup>108</sup> For the attested deme and *polis* processions of classical Athens, see Parker 2005, 178 n.2.

<sup>109</sup> For the procession of the City Dionysia, see Csapo and Slater 1994, 105-6, 113-15; Pickard-Cambridge 1988, 61-3. For that of the Great Panathenaia, see Parker 2005, 258-68; Shear 2001, 120-230.

<sup>110</sup> Shear 2001, 128-30; Stevenson 2003, 248-51.

<sup>111</sup> Shear 2001, 139-43.

<sup>112</sup> P. Wilson 2000, 24-5.

awarding of winners (49.3, 60.1). No other religious celebration had its own board of city-based magistrates.

<b>Table 3: Festival Liturgies around 355</b>	
<b>Festival</b>	<b>Liturgies</b>
City Dionysia	28
Lenaia	7
Thargelia	10
Hephaistia	10
Promethia	10
(Great)	(40) 19
Panathenaia	
Arrhephoria	1
Amphiareia	10
Festivals outside of Athens	2
<b>TOTAL</b>	<b>(118) 97</b>

At these major festivals private spending on contests for choruses and tribal teams was likewise hugely disproportionate. We have already discussed how the costs of training and equipping choruses were covered by upper-class citizens serving as *chorēgoi*, while *gumnasiarkhoi* (‘athletic-training-sponsors’) did the same for the teams of torch racers. In addition wealthy individuals were responsible for a smaller number of other festival liturgies (e.g. Demosthenes 21.156; Lysias 21.5). In a jury-court speech of 355/4 Demosthenes claimed that there were 60 or slightly more festival liturgies in any one year (20.21). Boeckh judged this claim ‘hardly credible’ but never investigated the actual numbers of liturgies at each festival in order to test it properly.<sup>113</sup> The first to do so was John Davies forty years ago.<sup>114</sup> Table 3 details his findings, which clearly vindicate Boeckh’s judgement: during the 350s festival liturgies added up to 97 annually, rising to 118 in the years of the Great

<sup>113</sup> Boeckh 1828, volume 2, 205 (book 3 chapter 21).

<sup>114</sup> Davies 1967, 33.

Panathenaia.<sup>115</sup> Crucially they also suggest that the City Dionysia had 29 percent of these liturgies in three out of four years, while the two festivals together accounted for 59 percent of the total number of liturgies.<sup>116</sup>

The four-yearly celebration of the Panathenaia also supported an enormous number of individual competitions. The surviving prize-list of the early fourth century details 27 events for such contenders (*IG II*<sup>2</sup> 2311).<sup>117</sup> This festival followed the normal practice of running separate contests for different age-classes but the awarding of prizes to placegetters as well as victors set it apart from other games.<sup>118</sup> For individuals then the festival of the 380s had 39 contests and 81 prizes, whose combined monetary value was probably 7 t. 2374 dr. (see part 1 above). This program of individual competition was more extensive than the Olympic Games, which explains why this festival took up 10 days, lasting far longer than any other Athenian festival.<sup>119</sup> The paucity of evidence for the three other sets of individual contests in the early fourth century complicates our calculation of the relative weight of Panathenaic spending on contests for individuals.<sup>120</sup> What we can safely say of their scale, however, strongly suggests this major celebration used up the lion's share of public expenditure on this class of ritual acts.

The games of the Eleusinia go back to the early years of the Athenian democracy (e.g. Pindar *Isthmian* 1.57; *Olympian* 9.99; 13.110; *IG I*<sup>3</sup> 988).<sup>121</sup> Yet the

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<sup>115</sup> Davies 1967, 40. Of the discrepancy between the actual number of festival liturgies and what this public speaker claimed Davies writes (1967, 40): '...one is more or less bound to conclude that either Demosthenes was very badly misinformed or that he was being grossly disingenuous. The latter is much more likely. It suited his case to minimise the extent of the liturgical burden, so that the continuing privileges of the 'twenty or thirty' *ateleis*, on behalf of one of whom (Ktesippos) he was speaking, might appear to be proportionally the less important and the less crippling to Athenian festival finances. The surprising and illuminating thing is that Demosthenes thought he could get away with it.'

<sup>116</sup> Davies 1967, 39-40 appears to incorporate into its tallies for the 350s the 10 liturgies of the Amphiareia (*IG II*<sup>2</sup> 417), which was celebrated at the god's sanctuary at Oropos (Parker 2005, 457). Yet it is now better known that Athens lost control of this border region between 366 and the mid-330s (Humphreys 2004, 95, 112-4; Parker 1996, 146-9). Therefore the proportion of liturgies the City Dionysia and Great Panathenaia accounted for, in the mid-fourth century, was probably slightly higher than is indicated by these percentages.

<sup>117</sup> My figures are based on the prize-list's restoration by Shear (2003a, 103-5).

<sup>118</sup> Golden 1998, 104-112; Miller 2004, 13-14.

<sup>119</sup> For the Olympic program at the end of the fourth century, see Miller 2003; 2004, 113-29. For the duration of the Great Panathenaia, see Kyle 2007, 157-8; Shear 2001, 383-4.

<sup>120</sup> The staging of such contests at the Olympieia and Theseia is uncertain for this period: there is no evidence their programs of the Hellenistic period date back to the fourth century (Parker 2005, 477, 483-4; Kyle 1987, 40-1, 46).

<sup>121</sup> Healey 1990, 1-71; Kyle 1987, 47; Parker 2005, 201-2, 468-9.

earliest evidence for their frequency and scope of events is the later-fourth-century accounts of the three supervisors of Eleusis and the treasurers of the two goddesses (*IG* II<sup>2</sup> 1672).<sup>122</sup> After elaborating the sanctuary's income and expenditure, they record the amount of wheat received as rent on its sacred lands and how it was spent between 332/1 and 329/8 (252-61). Seventy *medimnoi* of wheat were given out as prizes for two celebrations of a *trietēris* or two-yearly version of the festival (258-9) and probably another 70 *medimnoi* for a four-yearly version (258-60; cf. 261).<sup>123</sup> Both versions – according to the accounts – had horse races and contests in athletics, music and ‘ancestral’ events (258-60). As they next mention a horse race recently ‘added by an assembly-decree’ (261), these two- and four-yearly celebrations undoubtedly predate the expansion of pre-existing contests which Lykourgos and others championed from the mid-330s.<sup>124</sup> By the early fourth century Athens had been staging for nearly a century annual ‘contests in athletics, equestrian events and music of every sort’ as part of its heroisation of the war dead (Plato *Menexenos* 249b; cf. Diodoros 11.33.3).<sup>125</sup> The victors of these games took home as prizes bronze hydriai and lebetes (*IG* I<sup>3</sup> 523-5).<sup>126</sup> Finally the four-yearly festival of Herakles at Marathon had athletic and musical *agōnes*, whose participants competed ‘over silver cups’ (Pindar *Olympian* 9.90; cf. *Nemean* 9.51-3).<sup>127</sup>

Frustratingly there is no direct evidence for the number of contests in any one of these festivals. Nevertheless we have two pointers to the relative size of their programs. Firstly the city had far less administrative capacity to plan for, and stage, these festivals than it did for the Great Panathenaia. The Eleusinia and Marathonian Herakleia were administered by the so-called annual *hieropoioi*, who also had responsibility for several other festivals and sacrifices.<sup>128</sup> Likewise the annually-appointed polemarch had much more to do than just organise the *agōnes* for the war

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<sup>122</sup> Humphreys 2004, 88. These three supervisors were elected by the Athenian *dēmos* (Rhodes 1981, 638). In addition to their sanctuary-based duties they helped the king archon run the processions of the Mysteries and Lenaia (*Ath. Pol.* 57.1; *IG* II<sup>2</sup> 1496.74-5; 1672, 182).

<sup>123</sup> Healey 1990, 18-25, 67 n.57; Simms 1975, 269-70 *pace* Clinton 1979, 9-12.

<sup>124</sup> Parker 1996, 246.

<sup>125</sup> *Ath. Pol.* 58.1; Demosthenes 60.10; Lysias 2.80; cf. Plutarch *Perikles* 8.6. Kyle 1987, 44-5; Parker 1996, 132; 2005, 469-70; Pritchett 1985, 106-12; Vanderpool 1969, 3-5. For the common practice of treating war dead as demigods, see Currie 2005, 89-119 with testimonia.

<sup>126</sup> Vanderpool 1969, 1-3.

<sup>127</sup> *Ath. Pol.* 54.7; Demosthenes 19.125; Pindar *Olympian* 9.84-94; *Pythian* 8.78-9; *IG* I<sup>3</sup> 3, 1015 *bis*. Kyle 1987, 46-7; Parker 2005, 473; Vanderpool 1942, 335-6; Woodford 1971, 217.

<sup>128</sup> *Ath. Pol.* 54.7; *IG* I<sup>3</sup> 375.6-7; II<sup>2</sup> 1496.76-7, 98-9, 107-10, 134-5, 138-9; Rhodes and Osborne 2003, no. 81; cf. *IG* I<sup>3</sup> 3 for the *ad hoc* administration of the Herakleia of the early fifth century.

dead (*Ath. Pol.* 58.1-3). As a consequence the city most probably could not have staged sets of competitions which were more than half the scale of the Panathenaic games. However, a second fact points to these programs running close to or at this maximum of 20 contests: they were clearly extensive enough to attract foreign competitors. The songs of Pindar mentioning the games of Eleusis and Marathon celebrated the victories of non-Athenians (see above), while one of the three surviving prizes from the games for the war dead was found in a cemetery outside of Thessaloniki.<sup>129</sup> Their prizes were of significantly less value than those of Athena's festival. The prizes of wheat at the two- and four-yearly versions of the Eleusinia had a monetary value of 210 dr. and 420 dr. respectively.<sup>130</sup> The silver *phialai* or drinking cups for the Herakleia would have cost no more than 4000 dr. and the bronze vessels of the funeral games 1000 dr.<sup>131</sup> When these maxima and the figures for the Great Panathenaia are averaged out year by year, Athena's festival takes up 19 percent of all contests for individuals and a staggering 83 per cent of the monetary value of their prizes.<sup>132</sup>

The focusing of Demosthenes on the City Dionysia and Great Panathenaia in his unflattering comparison of the city's staging of festivals and waging of war is very understandable (4.35-7). Considerably more time and effort went into setting up and staging these showcases.<sup>133</sup> They also used up a larger amount of public and private money: Wilson's costing of the City Dionysia and my own of the Great Panathenaia

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<sup>129</sup> Thessaloniki Archaeological Museum, inv. no. 5243. The other two were used as funerary urns in Attic cemeteries (Vanderpool 1969, 1-3).

<sup>130</sup> The average price of a *medimnos* of wheat was 6 dr. (Pritchett 1956, 196-8 with primary sources).

<sup>131</sup> Silver *phialai* weighed between 100 and 200 dr. (D. Harris 1995, s.v. 'phiale'; Vickers and Gill 1994, 40-1, 47-52). The maximum cost then is 20 cups at 200 dr. per cup. The best evidence for the value of the prizes of the funerary games is the 25 dr. 2 obols paid for a second-hand *khalkion thermantērion* in the later fifth century (*IG I<sup>3</sup>* 421.96). This was a similar size to a *lebēs* and was probably double the value of a bronze hydria (Amyx 1958, 218). Intriguingly the individual winner of the torch race at the Great Panathenaia gets a hydria of unspecified material which is worth 30 dr. (*IG II<sup>2</sup>* 2311.89). So 50 dr. is a safe estimate for each of the prizes at the games for the war dead.

<sup>132</sup> My calculations factor in the solitary contests of 3 other festivals: the torch race on horse back at the Bendideia (Plato *Republic* 327a-8b), the footrace for youths carrying vine-branches at the Oskhophoria and the torch race for individuals at the festival of Pan (Herodotos 6.105). We have no evidence concerning their prizes. Kyle 1987, 47-8; Parker 1996, 170-5; 2005, 211-7, 463, 477.

<sup>133</sup> This is borne out as well by the choruses of the City Dionysia and Thargelia: although their *khōregoi* were appointed at the beginning of the archontic year (*Ath. Pol.* 56.2-3), the training of choruses for Dionysos went on for 7 or 8 months, whereas the dithyrambic choristers of the Thargelia probably only did so in the two months between the two festivals (Pritchard 2004, 214, 221).



suggest around 35 t. 881 dr. per year. The study above of the standard elements of Athenian worship group by group now allows an estimate of the percentage of total expenditure which the two festivals accounted for. This was probably at least 35 percent, which suggests the entire program of state-supervised festivals cost 100 t. 2517 dr. This global cost of one hundred talents is an undeniably large amount of money. It was comparable to the running costs of the democracy itself and was most probably larger than the annual income of an average-sized Greek city.<sup>134</sup> Classical Athens was of course the leading cultural centre of the Greek world. The disciplines of drama, music, oratory, literature and the visual arts were developed to a far higher level of quality in this city than any other, with many of the works produced there becoming canonical for Graeco-Roman antiquity. Ever since Johann Winckelmann – the eighteenth-century founder of Classical Archaeology – this cultural revolution has been viewed as the product of democracy.<sup>135</sup> In particular the requirement for upper-class poets and *chorēgoi* to compete for the favour of lower-class spectators has been thought to have driven rapid innovations in comedy, tragedy and dithyramb.<sup>136</sup> However, this unexpectedly high estimate of spending on religious celebrations suggests another major reason for these innovations: the extraordinary wealth of

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<sup>134</sup> Hansen costs the democracy's honorary decrees and its payment of assembly goers, councillors and jurors at 92 to 112 t. per year in the 330s (1991, 98, 150, 189, 241, 254-5, 315-6). There had been pay for the city magistrates in the later fifth century until the oligarchic regime of 411 stopped this practice (e.g. *Ath. Pol.* 29.5; Pseudo-Xenophon 1.13; Thucydides 8.56.3, 67.3). Since the surviving sources from the late fifth century onwards do not mention the restoration of pay for magistrate, Hansen plausibly concludes that they did not receive a *misthos* in the 330s (e.g. Hansen 1991, 240-1; *contra* Gabrielsen 1981). A century earlier Athens may not have provided pay for assembly goers, which was introduced only around 400 (Loomis 1998, 20-2), but this was offset by the sizeable salary bill for magistrates, whose number had grown enormous to meet the administrative tasks of the empire. At this time there were probably 700 magistrates at home and the same number again working overseas (*Ath. Pol.* 24.3 with Hansen 1980 and Meiggs 1972, 215). Around 430 then the running costs of the democracy were probably not significantly lower than what they would be a century later (Kallet 1998, 46). At the outbreak of the Peloponnesian War the annual income of Athens was 1000 t. (see below). At this time, however, Athens enjoyed significant imperial income and was the centre of long-distance trade in the Aegean, while its territory and citizen population were around twenty times larger than an average-sized *polis* (Hansen 2006, 77-84; Hansen and Nielsen 2004, 70-3). Thus its annual income would have been of a different order of magnitude to the vast majority of Greek cities.

<sup>135</sup> E.g. Boedeker and Raafaub 1998; Dawson 1995, 4-5; Pritchard 2007, 331-2. *Contra* Samons 2001.

<sup>136</sup> For this performance dynamic, see Pritchard 2005a, 21-2; and especially Wallace 1997. For the competition-driven innovations of tragedians, comedians and dithyrambic poets, see respectively Burian 1997, 206; Bremer 1993, 160-5; and Zimmermann 1996, 53-4.

Athens and its upper class and the ability of both to spare significant sums for festival-based *agōnes*.

### **3. Public Expenditure on the Armed Forces during the Peloponnesian War**

The global cost of Athenian military activity cannot be reliably calculated before the late 430s. We may know that the siege of Samos of 441/0 to 440/39 cost the democracy 1276 t. (Isokrates 15.111; Nepos *Timotheus* 1; *IG* I<sup>3</sup> 363), but, before 433/2, we otherwise lack figures for total military spending in any year or period and even the basic parameters of documented military ventures, which would allow us, at least, to build up an estimate of spending expedition-by-expedition. This lack of firm evidence for basic parameters scuttles the attempt of Ron Unz to calculate how much Athens spent on war between 478/7 and 433/2, which he estimates at 13,000 t. or close to an average of 300 t. per year.<sup>137</sup> In the absence of hard information his calculations assume that fleets were away for the full sailing season of 8 months and their participants each paid only 3 obols per day.<sup>138</sup> Neither assumption is secure.<sup>139</sup> A recent study of the better-documented years of 433/2 to 426/5 suggests that there was no standard length of time for Athenian expeditions in the later fifth century, with fleets away from only a few months to many months more than the regular sailing season.<sup>140</sup> The case may now be closed that the daily pay for Athenian sailors and hoplites was 1 dr. per day between 433/2 and 412/11 (e.g. Thoukydides 3.17.4; 6.8.1; 6.31.3; 7.27.1-2).<sup>141</sup> But we still do not know when hoplites began to be paid and when 1 dr. became the standard daily rate.<sup>142</sup>

By contrast, the great interest which the new genre of historiography took in the Peloponnesian War and the larger numbers of literary and epigraphical sources surviving from the later fifth century mean that we have consistently detailed information about the expeditions of these three decades of war and reliable figures for state income at its outbreak. For its first phase there are also surviving inscriptions recording the yearly tribute which the subject cities of the empire were required to pay Athens and the sacred monies it borrowed to cover the war effort. While military

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<sup>137</sup> Unz 1985, 24-7.

<sup>138</sup> Unz 1985, 25 n. 15.

<sup>139</sup> Samons 2000, 305-11.

<sup>140</sup> Rosivach 1985 (1992).

<sup>141</sup> Loomis 1998, 39-44, 55-6 with bibliography.

<sup>142</sup> Loomis 1998, 36-9; van Wees 2004, 237; 316 n.27.

historians have typically shied away from costing the Peloponnesian War or any other conflict, these figures for the democracy's income and loans would appear to yield, when properly coordinated and added up, annual totals of public spending on military affairs from the battle of Sybota of 433/2 to within a year of the conclusion of the so-called Arkhidamian War in 422/1.<sup>143</sup>

On the eve of the Peloponnesian invasion of Attike in 432/1, Perikles reassured the assembled Athenians that they possessed the necessary resources to win the impending war with Sparta and her allies (Thoukydides 2.13). As their strength lay in the money from their subjects, Perikles argued, they should be heartened by the 600 t. which they received mainly as *phoros* or tribute every year (2.13.3; Plutarch *Aristeides* 24.3). This imperial income also included booty, shipping tolls, the rents of sacred lands overseas, and the indemnities that Athens had imposed on cities whom it had forcefully prevented from seceding from the *arkhē* or empire (e.g. Thoukydides 1.117.3; *IG I<sup>3</sup>* 61.39-42; 369.42).<sup>144</sup> Because the tribute of 433/2, the closest year for which firm evidence exists, was 388 t. (*IG I<sup>3</sup>* 279), this second stream of imperial income probably added up to 212 t. per year at the outbreak of the Peloponnesian War.<sup>145</sup> The bulk of this imperial income was managed by the Athenian *hellēnotamiai* ('treasurers of Greece'), who dispersed funds to generals on campaign and paid directly for other military expenses.<sup>146</sup> Perikles carefully distinguished this 600 t. from 'the other income' (Thoukydides 2.13.3), which was raised internally from (among other sources) the silver mines, taxes, court-fees, the rents on sacred land, and the public auction of confiscated goods and properties (e.g. Aristophanes *Wasps* 656-60; *IG I<sup>3</sup>* 421-30). Xenophon reckoned the money which Athens raised locally and from abroad was not less than 1000 t. in 432/1 (*Anabasis* 7.1.27). This internal income then was probably 400 t.<sup>147</sup> Since the city would not have needed to spend more than a third of this last figure on the salaries of the democracy and the city-sponsored program of festivals (see part 2 above), we can safely assume 100 t. of this internal income could have been directed (if necessary) to military-related activities.<sup>148</sup>

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<sup>143</sup> Samons 2000, 208-9.

<sup>144</sup> Gabrielsen 2007, 263.

<sup>145</sup> Gomme 1956, volume 1, 17-19; Meritt *et al.* 1950, 334; Samons 2000, 200-6, 309.

<sup>146</sup> E.g. *IG I<sup>3</sup>* 375.4, 8, 9-10, 12, 16-18, 24; 464.105-6; 465.123-5, 127-8; 466.144-5. Meritt *et al.* 1950, 329-32; Samons 2000, 230.

<sup>147</sup> Kallet 1998, 44, 46.

<sup>148</sup> In the next century the spending of the city's surplus income on campaigns was standard practice until the creation of the so-called festival fund by 349/8 at the latest (see part 4 below).

The astronomical cost of the Arkhidamian War compelled the Athenians relatively quickly to raise their general level of taxation (e.g. Thoukydides 2.70.2; 3.17.3).<sup>149</sup> In 428/7 the Athenian people imposed an *eisphora* or emergency tax for war on the property of the upper class, which raised the unprecedented sum of 200 t. (Thoukydides 3.19.1).<sup>150</sup> This tax may have haunted Athenian public debate into the late 420s (e.g. Aristophanes *Wasps* 923-6), but it was probably abandoned for the time being when, in 425/4, the city massively increased the amount of *phoros* which their subjects were forced to pay.<sup>151</sup> Indeed a goal of this increase may have been to render the taxing of the property of citizens unnecessary. From the surviving list of the new payments Athens demanded of individual cities the grand total of this tribute reassessment appears to have been slightly over 1460 t. (*IG I<sup>3</sup>* 71.61-181).<sup>152</sup> Clearly the actual total of tribute the Athenians collected must have been lower, as some of the cities on this inscribed list had never been or were no longer part of the *arkhē*, while others were in open revolt against the imperial city. However, it was most probably not significantly lower; for Plutarch wrote that tribute rose to 1300 t. after the death of Perikles (*Aristeides* 24.3); Andokides said it got to 1200 t. after the Peace of Nikias of 422/1 (3.8-9); and Aristophanes claimed, in *Wasps* of 423/2, that the combined income of Athens was nearly 2000 t. (656-60).<sup>153</sup> If (as seems likely) internally raised income and the non-tribute income of empire remained relatively steady during the Arkhidamian War, this figure of Aristophanes translates into a *phoros* of up to 1388 t. This literary evidence suggests 1200 t. as a safe estimate of tribute from 425/4 onwards.

As the Peloponnesian League prepared to ravage Attike Perikles also told the assembly there was stored on the Akropolis several thousand talents of coined silver and other bullion, which they could spend on defending the city as long as they paid back no less in due course (Thoukydides 2.13.3-6). These cash reserves apparently lay in the treasuries of Athena and the other gods; for, in 433/2, the Athenians liquidated the accumulated funds of the imperial treasury, ordering the *hellēnotamiai* to transfer 3000 t. to Athena, repay all loans to the other gods and spend whatever

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<sup>149</sup> Rhodes 2006, 92-3.

<sup>150</sup> Boeckh 1828, volume 1, 386-7 (book 2 chapter 24); Brun 1983, 22-6; Christ 2006, 161-2; Hornblower 1991, 403-4; Samons 2000, 205.

<sup>151</sup> Brun 1983, 24; Meritt *et al.* 1950, 345; West 1930, 238 *pace* Gomme 1956, volume 2, 279.

<sup>152</sup> Meiggs 1972, 325; Meiggs and Lewis 1969, 193-4; Meritt *et al.* 1950, 345.

<sup>153</sup> Sommerstein 1983, 197.

remained on the dockyards and city-walls (*IG I<sup>3</sup> 52A*).<sup>154</sup> Incredibly a record of how this sacred money was dispersed survives in the form of the so-called *logistai*-accounts, which ostensibly document the debts to Athena and other gods between the Great Panathenaia of 426/5 and its next celebration in 422/1 (*IG I<sup>3</sup> 369.1-2*).<sup>155</sup> For these four years the *logistai* ('public auditors') detailed 808 t. of loans and the interest owing on each at the end of this period (2-97). As the amounts of these 20 loans and the years in which they were made are recorded, the total level of borrowing for each year can be easily calculated. In order to record presumably the monies owing as fully as possible, the public auditors also recorded the total amount of loans each of the sacred treasuries had issued between 433/2 and 427/6 and the interest which had accrued on these loans in the last quadrennium (98-111). Finally they spelt out the totals of the loans from, and the interest owing to, Athena Polias, Athena Nike and the other gods from 433/2 to 423/2 (112-20). The grand total of the sacred loans of these 11 years is 5600 t. (122-3). Although these accounts do not detail individual loans nor annual totals for the years from 433/2 to 427/6, the interest figures which they give for this period put it beyond doubt that the vast bulk of the loans of these seven years were issued in the first four.<sup>156</sup> On the basis of these interest figures and other evidence for sacred loans (e.g. *IG I<sup>3</sup> 364*) the editors of the Athenian tribute-lists also confidently estimated the totals of loans in this seven-year period.<sup>157</sup> As their estimates have long been accepted, they will be integrated into my calculations.<sup>158</sup>

The *logistai*-accounts are the key piece of evidence for estimating public spending on military affairs from 433/2 to 423/2. Although they never indicate the purpose of the sacred loans, they would appear to have been used exclusively for waging war.<sup>159</sup> Firstly, putting these interest-bearing loans to a military end is consistent with the advice of Perikles that the people could spend their cash-reserves on the impending war as long as they paid back no less (Thoukydides 2.13.5-6). Since the Athenians clearly perceived these reserves as a real military asset and did act on the advice of Perikles to use this money for the Peloponnesian War, it seems

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<sup>154</sup> Samons 2000, 107-63.

<sup>155</sup> Gomme 1956, volume 2, 432-6; Meiggs and Lewis 1969, no. 72.

<sup>156</sup> Meiggs and Lewis 1969, 217; West 1930, 233-6.

<sup>157</sup> Meritt *et al.* 1950, 341-5.

<sup>158</sup> E.g. Jacquemin 2000, 149-50; Samons 2000, 209.

<sup>159</sup> As is widely assumed; see, for example, Gabrielsen 1994, 116; 2007, 265; Meiggs and Lewis 1969, 216; Samons 2000, 209; van Wees 2000, 107-8.

very likely that they also treated their disbursements as loans as he had implied.<sup>160</sup> Secondly, the accounts may not consistently indicate the officials who received the 20 loans of 426/5 to 423/2, but, when they do, the recipients are either generals in the field or the treasurers of Greece (*IG I<sup>3</sup>* 369.2-3, 18, 20-1, 26-7, 56), who, as we have seen, had a central role in the financing of campaigns. Thirdly, the proportion of the yearly income which the democracy could direct to military activities was manifestly insufficient for covering the costs of the Arkhidamian War. For example, the two-year siege of Potidaea from 432/1 cost the public purse 2000 t. (Isokrates 15.133; Thoukydides 2.70.2), while the other naval expeditions of these 2 years consumed around 840 t.<sup>161</sup> As these undertakings alone cost considerably more than the 700 t. of annual income Athens could spend on military affairs, it obviously drew heavily on other funds, which, before the *eisphora* of 428/7, were only available in the sacred treasuries on the Akropolis. Finally, in the absence of a major building program during the Arkhidamian War, the financial demands of war are the only explanation we have for why the city borrowed a massive 5600 t.<sup>162</sup> Since ‘the obvious and natural view of Athenian war finance’ is that the Athenians exhausted their yearly income before borrowing from the gods, the *logistai*-accounts do more than evidence another source of military funding.<sup>163</sup> They also confirm Athens used up all of its annual income for military affairs between 433/2 and 423/2. This means public spending on the war-making of this period is simply the sum of the income which it could spend on military affairs and the attested loans.

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<sup>160</sup> E.g. Andokides 3.7-9; Thoukydides 2.24.1; Xenophon *Anabasis* 7.1.27; *Ways and Means* 5.12. Gauthier 1976, 213.

<sup>161</sup> For the number of ships in the expeditions of these years and their approximate number of days at sea, see Rosivach 1985 (1992), 45-7. At the daily rate of 1 dr. per combatant the 200-strong crew of a trireme cost 1 t. per month (e.g. Thoukydides 6.8.1).

<sup>162</sup> For public building in this period, see Boersma 1970, 82-96.

<sup>163</sup> For this view of Athenian war finance, see, for example, Meiggs and Lewis 1969, 216; Meritt *et al.* 1950, 329-32; Rhodes 1988, 194; Samons 2000, 23, 162. Quotation from Meiggs and Lewis 1969, 216.

**Table 4: Public Expenditure on Military Affairs during the Arkhidamian War**

Archon Year	Tribute	Imperial Income	Internal Surplus	War Tax	Loans	TOTAL
<b>433/2</b>	388 t.	212 t.	100 t.	–	76 t.	<b>776 t.</b>
<b>432/1</b>	388 t.	212 t.	100 t.	–	1145 t.	<b>1845 t.</b>
<b>431/0</b>	388 t.	212 t.	100 t.	–	1370 t.	<b>2070 t.</b>
<b>430/29</b>	388 t.	212 t.	100 t.	–	1300 t.	<b>2000 t.</b>
<b>429/8</b>	388 t.	212 t.	100 t.	–	600 t.	<b>1300 t.</b>
<b>428/7</b>	388 t.	212 t.	100 t.	200 t.	200 t.	<b>1100 t.</b>
<b>427/6</b>	388 t.	212 t.	100 t.	200 t.	100 t.	<b>1000 t.</b>
<b>426/5</b>	388 t.	212 t.	100 t.	200 t.	261 t.	<b>1161 t.</b>
<b>425/4</b>	1200 t.	212 t.	100 t.	–	130 t.	<b>1642 t.</b>
<b>424/3</b>	1200 t.	212 t.	100 t.	–	163 t.	<b>1675 t.</b>
<b>423/2</b>	1200 t.	212 t.	100 t.	–	253 t.	<b>1765 t.</b>
<b>ANNUAL AVERAGE</b>				<b>1485 T.</b>		

Table 4 aggregates the various surviving figures for military spending over these 11 years. The grand total for public expenditure is 16,334 t., which translates into an unexpectedly high average of 1485 t. per year.<sup>164</sup> This last figure is supported by the reassessment decree of 425/4. Because the overriding purpose of this reassessment was ensuring that the city had sufficient money for the ongoing war (*IG I<sup>3</sup>* 71. 16-17, 46-8), there must have been a reasonably close relationship between the new target for tribute and anticipated military spending. In view of the general unpredictability of war the latter would have been based no less on the actual military spending of the recent past than on apparent requirements for the short term. This suggests that the closeness of the 1460 t. or so for assessed tribute and my average of 1485 t. per year for public spending on military affairs corroborates my calculations. This public expenditure was supplemented by the considerable amounts of their own money which elite Athenians spent on trierarchies. As Athens had between 100 and 250

<sup>164</sup> Pace Kallet 1998, 46.

triremes at sea between 433/2 and 423/2 (Thoukydides 3.17.1-2), this private spending ranged between 74 t. and 185 t.<sup>165</sup> These truly enormous costs of naval warfare fully explain why Perikles emphasised the centrality of money in his pre-war speeches and why non-elite citizens of the later fifth and fourth centuries believed the *dunamis* ('military power') and security of their city depended on ships, walls and especially money.<sup>166</sup>

The average level of military spending varied considerably between the subsequent phases of the Peloponnesian War. The Peace of Nikias of 422/1 heralded 5 years of markedly reduced military outlays, allowing Athens to build up once again several thousand talents of reserves (Aiskhines 2.175; Andokides 3.8-9; Thoukydides 6.26.2).<sup>167</sup> However, the global cost of the military activity of this phase still appears to have been around 30 per cent of the level of the Arkhidamian War. Between 433/2 and 413/12, regardless of whether the city was at war, the cavalry corps, the squadron of guard ships and the maintenance of the fleet and other military assets most probably consumed around 300 t. every year (see part 4 below). Moreover, this peace did not check the established military hyperactivity of Athens: the city reduced Melos and Scione by siege, in 421/0 and 416/5 respectively (Thoukydides 5.32.1; 5.84-114; 5.116.2-4), and campaigned against the Peloponnese in 418/17 (5.61-2, 64-75), and against Macedon in the following two years (5.83.4; 6.7.3). With the sailing of the Sicilian Expedition, in 416/5, combined military spending clearly bounced back to its level before the peace; for, while Sicily was not the only theatre of operations during the 3 years of this campaign, by the time the expedition was utterly destroyed it had cost in excess of 4000 t.<sup>168</sup>

The loss of so many lives and resources in Sicily greatly distressed the Athenians, leaving them without enough ships in the dockyards and forcing them to

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<sup>165</sup> The average cost of a trierarchy was 4436 dr. (see part 1 above). For the fleet-sizes of these years, see Amit 1965, 22-3; Boeckh 1828, volume 1, 354-5 (book 2, chapter 21); Rosivach 1985 (1992), 44-51.

<sup>166</sup> For Perikles and financial resources, see Thoukydides 1.142.4-5; 1.143.4-5; 2.13.2-3; 2.65.7. For this popular strategic thinking, see, for example, Andokides 3; Aristophanes *Akharnians* 162-3; *Birds* 378-80; *Frogs* 365; *Lysistrata* 170-6, 421-3, 488, 496; *Wealth* 112; Demosthenes 4.40; 8.48; 9.40, 70-2; 13.10; 22.12-17; Lysias 13.46-8; 28.15; fragment 39 Thalheim; *IG* II<sup>2</sup> 1604.70, 1607b.22, 47, 62; Gabrielsen 2008; Pritchard 1998, 55; 1999a, 214-22.

<sup>167</sup> Samons 2000, 166-7.

<sup>168</sup> Samons 2000, 235. The pay for the varied crews of the 100 Athenian ships which sailed in 416/5 would have been 3600 t. alone (Thoukydides 6.43). In addition the expedition included large numbers of mercenary soldiers and allies and received significant reinforcements (6.93.4; 7.20.2).



cut the daily pay of sailors from 1 dr. to 3 obols (Thoukydides 8.1.2; 8.45.2).<sup>169</sup> In little more than a year, however, they had tapped their emergency reserve of 1000 t. to build and man triremes and had a force of 100 or so ships at Samos (2.24.1-2; 8.15.1-2; 8.30.2). They had this number of ships at sea or based away from Athens for the rest of the so-called Ionian War, with numbers swelling to 150 ships at Arginousai, in 407/6, and 180 ships at Aegospotami two years later (Xenophon *Hellenika* 1.6.24-5; 2.1.20). This naval commitment – along with the terrestrial defence of Attike from Spartan and Theban raids (Oxyrhynchus Historian 12.4; Thoukydides 7.27.5) – would have kept military spending at 60 per cent or so of the average level it had reached between 433/2 and 423/1.<sup>170</sup>

#### 4. The Cost of the Armed Forces in the 370s and 360s

The traditional view of Athens in the fourth century is that the population-losses of the Peloponnesian War and the collapse of the income-bearing empire caused a wholesale decline in its war-making.<sup>171</sup> It has long been argued that the *dēmos* of postwar Athens initiated fewer wars and were reluctant to serve personally when they did so. As a result, mercenaries had to be employed in increasingly large numbers and soon formed the core of the city's armed forces. The massive reduction in state income often prevented Athens from launching essential fleets and forced those of its generals who did get to sea to loot foreign lands or join local wars – on their own initiative – in order to pay for their mercenary forces. In making this interpretation ancient historians of the twentieth century took at face value the generalisations which Demosthenes made about Athenian warfare in his assembly speeches of the late 350s and 340s. As part of his efforts to convince the *dēmos* to wage war against Philip of Macedon, Demosthenes characterised their military behaviour as morally

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<sup>169</sup> Loomis 1998, 44-5.

<sup>170</sup> Year-round 100 ships at 3000 dr. each per month comes to 600 t. The trierarchies required for these ships would have cost 74 t. The main burden of defending Attike fell to the Athenian cavalry (Bugh 1988, 82-5), whose regular members, after Sicily, were paid 1 dr. per day and *hippotoxatai* or mounted archers 2 dr. per day (Lysias fragment 6.75-9 Gernet and Bizos; Loomis 1998, 45). Their total pay comes to 85 t. per year if we assume 1000 horsemen and 200 mounted archers (Thoukydides 2.13.8; Bugh 1988, 221). To this combined total of 759 t. per year would have been added the wages of the other land-based troops defending Athens and its countryside, the cost of shipbuilding and the costs of the warships over and above the 100 the city regularly had away from Athens.

<sup>171</sup> E.g. Austin and Vidal-Naquet 1977, 135-8; Brun 1983, 143-4, 176-7, 183-5; Davies 1978, 198-9; de Ste. Croix 1981, 293, 607 n.37; Ehrenberg 1951, 314-7; Mossé 1962, 315-22. For critiques of this decline-historiography, see Burckhardt 1995, 108-10; Harding 1988, 61; 1995, 105-6 Millett 1993 – all with bibliography.

questionable and a source of shame.<sup>172</sup> He repeatedly claimed that his contemporaries were falling short of the high standard of fifth-century Athenians, who had constantly performed acts of *aretē* ('gallantry'), endured *kindunoi* ('dangers') and won many victories on land and at sea for the sake of just international relations (e.g. 2.24; 3.23-6; 4.3-4; 9.36, 40; 13.21-35). They were currently ignoring the solemn duty of every citizen to fight for the city (e.g. 2.23-4; 3.3; 4.2-4, 52).<sup>173</sup> By their refusal to serve personally they behaved as cowards, leaving mercenaries to fight their wars (e.g. 3.35; 4.7-8, 19, 24, 42, 46; 6.36; 8.21; 9.67; 13.4-5).<sup>174</sup> Finally, while they refused to pay the extraordinary tax on property for war or provide *misthos* for those actually in the field (e.g. 2.24-5; 8.21-2), they happily spent more public income on, and prepared more carefully for, *polis*-sponsored festivals than they did for any naval expedition (e.g. 1.19-21; 3.11-13, 19, 28, 30-2; 4.35-7). For this young and unestablished politician the *dēmos* could only restore their reputation by accepting his strategically questionable proposals for yet more military ventures in the north.<sup>175</sup>

Over the last quarter of a century the close study of the actual military performance of fourth-century Athens has largely overturned this bleak interpretation.<sup>176</sup> It has also corroborated the earlier doubts which were occasionally expressed about the reliability of Demosthenes as a reporter of military affairs.<sup>177</sup> In particular Leonhardt Burckhardt has demonstrated exhaustively that for the Athenian armed forces 'mercenaries were only an important supplement'.<sup>178</sup> Admittedly these foreign troops had long served as lightly armed specialists who fought alongside the regular army and were increasingly employed for sieges and year-round campaigns, in which citizens found it difficult to participate because of their social responsibilities.<sup>179</sup> Additionally the acute population losses of the later fifth century did make it necessary for upper-class trierarchs, despite the smaller size of fourth-

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<sup>172</sup> Mader 2006; Roisman 2005, 115-6.

<sup>173</sup> Pritchard 2007, 335; Roisman 2005, 117-8 – both with primary sources.

<sup>174</sup> While his audience would have interpreted the shirking of military service as cowardice anyway (e.g. Euripides *Children of Herakles* 700-1; *Phoenician Women* 999-1005), Demosthenes repeatedly says they are cowards (e.g. 3.31-2, 36; 4.42).

<sup>175</sup> For the lack of political success of Demosthenes before the mid-340s and the strategic shortcomings of his military proposals, see Badian 2000, 26-37; Cawkwell 1962a, 135-40; 1962b, 377-8; 1963, 53; Hunt (forthcoming).

<sup>176</sup> Pritchard 2007, 348-9.

<sup>177</sup> E.g. Cawkwell 1963, 53. Burckhardt 1995, 129-33; 1996, 211-29.

<sup>178</sup> Burckhardt 1995; 1996, 76-153. Quotation from Burckhardt 1995, 128.

<sup>179</sup> E.g. Demosthenes 8.9; 23.113; [Demosthenes] 50.21-2; Isokrates 15.111-12; Xenophon *Hellenika* 4.5.11-18.

century fleets, to hire non-citizen rowers for their crews. But the backbone of the armed forces of Athens remained its citizens. Throughout the fourth century Athenian hoplites and horsemen regularly fought pitched battles in central Greece where their fighting was decisive for the outcome (e.g. Xenophon *Hellenika* 3.5.18-22; 4.2.16-23; 4.3.15-20).<sup>180</sup> Athenians also kept coming forward for naval service in reasonable numbers (e.g. [Demosthenes] 50.29; Xenophon *Hellenika* 5.4.61).<sup>181</sup> The Athenian *dēmos*, in fact, waged war more often in the fourth century than previously: they campaigned incessantly from 396 to 386 and then from 378 to 338 with only year-long interruptions.<sup>182</sup>

In this century Athens manifestly ‘still ruled the waves’: it launched the necessary fleets to protect its shipping-lines to the Black Sea, which were vital for its grain-supply (Demosthenes 18.301-2; Xenophon *Hellenika* 5.4.61), and was widely recognised as the leading sea power (e.g. Demosthenes 6.12; 8.45; Diodoros 15.78.4; Xenophon *Hellenika* 7.1.1).<sup>183</sup> Clearly too the open debates of the democracy helped fourth-century Athenians to identify and effectively address their military shortcomings.<sup>184</sup> Mid-century, for example, they introduced a new age-based system for conscripting hoplites to tackle the perceived unfairness of the old one (e.g. Lysias 9), while in 336/5, a few years after their crushing defeat at Khaironeia, they extensively reformed the *ephēbeia* or cadetship to ensure future hoplites were as fully trained as possible.<sup>185</sup> The war-making of Athens did not decline then in the fourth century: its citizens still served as soldiers and sailors, started wars more frequently than ever before, undertook military reforms, and successfully kept wars away from their city and its countryside for most of the period.<sup>186</sup>

Clearly an important area for military innovation was the financing of war. The public purse of fourth-century Athens may have been significantly reduced but combatants still needed to be paid properly (e.g. Aristophanes *Wealth* 112). For naval expeditions this was a logistical necessity: as the trireme lacked the space for the stowing of provisions, its crew required money to purchase daily rations from

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<sup>180</sup> Burckhardt 1995, 118-20; Hanson 2000, 7; Harding 1995, 11-2; Lonis 1979, 17-21.

<sup>181</sup> Burckhardt 1995, 120-6.

<sup>182</sup> Austin 1994, 528; Cawkwell 1962b, 383.

<sup>183</sup> Burckhardt 1995, 112; Cawkwell 1984; Harding 1988, 68-71; Heskell 1997, 137. Quotation from Cawkwell 1984, 342.

<sup>184</sup> Blanshard (forthcoming); Pritchard 2005a, 21-2; 2007, 340, 348.

<sup>185</sup> See Christ 2001 and Burckhardt 1996, 26-75 respectively.

<sup>186</sup> Harding 1995.

local markets or private houses (e.g. [Demosthenes] 50.22, 53-5).<sup>187</sup> There was also no guarantee rowers would remain at their posts if they did not receive full pay. The conscription of Athenians for rowing is attested once only before 350, when the grain-supply was seriously threatened (4-7).<sup>188</sup> Normally individual trierarchs (as their forebears had done in the later fifth century) hired their *hupēresia* or corps of petty officers and their rowers directly from among those offering their services in the Piraeus or ports along the way (e.g. 7-8, 12-13, 18-19).<sup>189</sup> Because volunteer rowers faced no effective sanction against desertion and could readily find employers elsewhere, they could (and sometimes did) abandon their posts if they were not properly provided for (e.g. 11-12, 14-16, 25, 36).<sup>190</sup> Unsurprisingly, then, the Athenians, when they were carefully preparing for all-out war against Sparta in 378/7, reformed their collection of the *eisphora* and, in the course of the ensuing hostilities, began collecting *suntaxeis* or contributions from the members of the so-called Second Athenian Sea-League.<sup>191</sup> Another significant reform in this area was the reorganising of the recruitment of trierarchs in 358/7.<sup>192</sup> Additional sources of money for war were the surplus which the city regularly had from the internally raised income and the gifts of gold which it occasionally received from Persian satraps or the Great King.<sup>193</sup>

In spite of these financial reforms the treasuries of fourth-century Athens quite often did not have the money to cover fully the pay of the expeditionary forces which were dispatched.<sup>194</sup> In these circumstances Athenian generals made up the shortfall by drawing on the booty which they had captured (Diodoros 15.47.7; Nepos *Timotheos* 1; Xenophon *Hellenika* 6.2.36), plundering the countryside of the enemy

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<sup>187</sup> Figueira 1998, 261-3; Gabrielsen 1994, 118-19.

<sup>188</sup> Cawkwell 1984, 334; Heskell 1997, 144; Roisman 2005, 125-7.

<sup>189</sup> Burckhardt 1995, 125; Cawkwell 1984, 338-9; Gabrielsen 1994, 105-10 *pace* Amit 1965, 48-9. For the fifth-century situation, see Pritchard 2000, 112-14.

<sup>190</sup> Roisman 2005, 125-6.

<sup>191</sup> For the reform of the *eisphora* and its regular levying in the fourth century, see Demosthenes 2.24, 30; 22.44; [Demosthenes] 50.8; Isaios 6.60; Austin 1994, 546-8; Brun 1983, 28-73; Christ 2006, 147-9, 165-6. For the *suntaxeis*, which were probably first paid in the late 370s, see Aiskhines 2.71; Demosthenes 18.234; [Demosthenes] 49.49; *IG* II<sup>2</sup> 43.23; Austin 1994, 552; Brun 1983, 91-3; Gabrielsen 2007, 267-8.

<sup>192</sup> Gabrielsen 1994, 182-99.

<sup>193</sup> For the regular use of this surplus for war before the creation of the festival fund by 349/8 at the latest, see Cawkwell 1962b; 1963, 55-6; Rhodes 1981, 513-15.

For the gifts, see Diodoros 6.22.1; Lysias 19.24-6; Xenophon *Hellenika* 4.4.2; Austin 1994, 556-7; Heskell 1997, 44, 124-5.

<sup>194</sup> Gabrielsen 1994, 116, 250 n.25.

(Isokrates 15.111-12; Polyainos 3.10.9) or forcing cities in or near the theatre of operations to make ‘contributions’ (Aiskhines 2.71-2; Demosthenes 8.24-6).<sup>195</sup> Monies so raised were judged to be public property (Demosthenes 24.11-14; Lysias 28.6; Xenophon *Hellenika* 1.2.4-5).<sup>196</sup> The *dēmos* authorised their collection and usage, either before its generals departed or while they were in the field (Demosthenes 8.9; 21.3; Diodoros 16.57.2-3; Lysias 28.5-6).<sup>197</sup> Upon their return they submitted an inventory of what they had raised on campaign and handed over any surplus to the city (Demosthenes 20.17-80; Lysias 28.6). Thus these monies should be classified as public income.<sup>198</sup> Finally the ultimate guarantors of the funding of naval operations were the city’s trierarchs; for, if public funds could not cover the pay of their crews, they were normally forced to do so out of their own pockets ([Demosthenes] 50.10; Xenophon *Hellenika* 6.2.14).<sup>199</sup>

The lack of more than a few figures for the public finances of fourth-century Athens prevents us from using the same method for estimating military-related spending as we did for the Arkhidamian War. The only other available is the approach which we have used for working out private spending on the Great Panathenaia, namely the identifying of individual expenses and the estimating of each on the basis of surviving evidence and arguments from probability. The sum of these yields an estimate of the global cost of war which is the most reliable possible without detailed information on public finances. This tedious exercise is made easier if individual expenses are grouped according to the basic cost-classes of modern economics: capital costs, fixed operating costs, and variable operating costs.<sup>200</sup> Into the first class go what the Athenians spent on the ‘capital’ of war, namely ships, war-horses, weapons and armour. The second covers the expenses which the city and its trierarchs paid to keep the armed forces going regardless of whether or not they were formally at war. The final class includes the costs of the expeditions and campaigns that Athens chose to launch in any particular year.

From the Athenian decision of 378/7 to confront Sparta to the financial crisis of the later 350s enough evidence survives to derive reliable minimum totals for the first two of these cost-classes. The same cannot be said for variable operating costs. The

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<sup>195</sup> Gabrielsen 2007, 268-71.

<sup>196</sup> Gabrielsen 2007, 255-6.

<sup>197</sup> Burckhardt 1995, 115, 130; Hamel 1998, 44-6; Millett 1993, 190; 2009, 475; Pritchett 1971, 87-90.

<sup>198</sup> Pace Robbins 1918, 362-3, 378, 385.

<sup>199</sup> Gabrielsen 1994, 118.

<sup>200</sup> Brun 1983, 144-5; Robbins 1918, 361-3.

*Hellenika* of Xenophon, which is our major source for the period, ostensibly narrates Greek international relations from the point, in 411/10, where Thucydides abruptly stops to the battle of Mantinea in 363/2. But this author, who lived away from Athens for most of his life, notoriously failed to cover Athenian campaigns in the northern Aegean, which was the major theatre of Athenian operations throughout the 360s. For this decade and the next we must rely then on the extant speeches of Athenian litigants and politicians, who only mentioned those campaigns which were relevant to their briefs and, in so doing, normally did not canvass any of their basic parameters.<sup>201</sup> The excellent work that Julia Heskell has done on the chronology of the 360s notwithstanding, these sources do not allow us to estimate reliably the variable operating costs of any one archontic year.<sup>202</sup> Fortunately Xenophon did pay close attention to the campaigns of the 370s, which were waged against his beloved Spartans. With its ‘great density of numerous and varied sources’ this decade is ‘better known’ than the others of the fourth century and is the only one for which we can reliably estimate the total of variable operating costs year by year.<sup>203</sup>

The first to cost carefully the military affairs of the 370s was Frank Egleston Robbins ninety years ago. His analysis of the ship- and troop-numbers of its expeditions remains the most thorough ever attempted and hence will be integrated into my calculations.<sup>204</sup> Nonetheless his estimates of the three basic cost-classes incorporated the consensus-positions of late-nineteenth-century scholarship on the cost of a trireme, rates of pay and so forth, which have not stood the test of time. This necessitates the fresh estimation of the capital and invariable operating expenses of the 370s and the cost of each of its expeditions on the basis of current thinking.

As a sea power Athens could not escape the significant capital cost of shipbuilding. Every year its assembly decided how many *kainai* or new ships were required and its councillors forfeited their customary end-of-service honours if these vessels were not built (*Ath. Pol.* 46.1; Demosthenes 22.8-11; Xenophon *Hellenika* 7.1.4). Traditionally scholars have assumed that the same number of triremes was commissioned year in and year out.<sup>205</sup> Yet this assumption has limited evidentiary support (Diodoros 11.43.3), ignores the ships that the city regularly captured from its

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<sup>201</sup> Brun 1983, 162-3; Burckhardt 1995, 124; Heskell 1997, 13-15; cf. Cawkwell 1963, 47.

<sup>202</sup> Heskell 1997, especially 159-81.

<sup>203</sup> Brun 1983, 154.

<sup>204</sup> Brun 1983, 154-8; Robbins 1918, 378-86; C.H. Wilson 1970, 305-8.

<sup>205</sup> E.g. Blackman 1969, 213-14; Boeckh 1828, volume 1, 333 (book 2 chapter 19); Robbins 1918, 368.

enemies, and sits uneasily with its documented practice of intensive shipbuilding to meet military exigencies (e.g. Andokides 3.5; Thukydides 8.1.3; *IG* I<sup>3</sup> 117; cf. Aristophanes *Acharnians* 1351-3).<sup>206</sup> Instead Vincent Gabrielsen argues: ‘It seems better to believe that the number of ships to be built in a year was decided by the assembly with due consideration to recent losses and gains and in accordance with current needs and aims and the availability of resources.’<sup>207</sup> The surviving evidence for ship-stocks during the 370s lends some support to this alternative view.

With the failure of Sparta to condemn Sphodrias for his unprovoked attack against the Piraeus in late 379/8, Xenophon tells us the Athenian *dēmos* decided that the King’s Peace had been broken and readied for war by putting gates on their harbours, aiding the Thebans and building *naus* (*Hellenika* 5.4.34-5). As part of their preparations they apparently also began scrutinising more thoroughly than before their naval capital; for although Athens of the previous century certainly had so-called *epimelētai tōn neōriōn* or supervisors of the dockyards (*IG* I<sup>3</sup> 153.18; 236.5-6), they apparently only began setting up annual accounts of the ships and equipment in the early 370s (*IG* II<sup>2</sup> 1604-32).<sup>208</sup> The supervisors of 377/6 reported just over one-hundred triremes in the dockyards. In their fragmentary account there are 35 ships which are described as *palaiai* (‘old’), 15 as *kainai* (‘new’), 3 with no description, and 49 for which a description has been lost or was never made in the first place (1604).<sup>209</sup> If we assume that the same proportion of the last 49 ships were ‘*kainai*’, the total of ‘new’ ships then would have been 29. Admittedly the dockyard-supervisors of later decades employed this adjective to describe not only ships which had been built during their terms but others which seemed as good as new. The account of 334/3, for example, describes ships built in 337/6 and 336/5 as ‘*kainai*’ and that of 326/5 a ship of 332/1 (*IG* II<sup>2</sup> 1623.286-9, 294-7; 1628.82-4). This usage makes it possible that some of the ‘new’ ships of 377/6 may have been commissioned as early as the late 380s. In view of Xenophon’s testimony, however, and the relative quietism of Athens after the King’s Peace of 387/6, it is more likely all were built in 378/7 and 377/6.<sup>210</sup> In the following years victories at sea swelled the size of the Athenian navy. At the battle of Naxos, in 376/5, Khabrias captured 49 enemy ships

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<sup>206</sup> Gabrielsen 1994, 134-6; 2007, 261; 2008; Meiggs and Lewis 1969, 279-80; Rhodes 1972, 115-17.

<sup>207</sup> Gabrielsen 1994, 135-6.

<sup>208</sup> Rhodes 1972, 117-19; Rhodes and Osborne 2003, 522.

<sup>209</sup> Brun 1983, 145-6; Sinclair 1978, 50-1; C.H. Wilson 1970, 309-11.

<sup>210</sup> Sinclair 1978, especially 51-2.

and more than 20 others in ones or twos afterwards (Demosthenes 20.77; Diodoros 15.34.6). The other surviving dockyard accounts of the 370s describe numerous ships and pieces of equipment as *aikḥmalōtos* or won by the spear under the command of Khabrias, Timotheos or Iphikrates.<sup>211</sup> Since none of these post-377/6 accounts describes a ship as ‘*kainē*’, these captures would appear to have been numerous enough to obviate the necessity for further shipbuilding.<sup>212</sup>

Robbins took over Boeckh’s costing of the hull of a trireme and its equipment at two talents.<sup>213</sup> This longstanding estimate is clearly much too high. A fourth-century trierarch had to pay 5000 dr. for a hull if he was judged responsible for the loss of his warship (e.g. *IG II<sup>2</sup>* 1628.339-68).<sup>214</sup> Although the cost of shipbuilding would have fluctuated along with the market rates of raw materials, this setting of 5000 dr. as compensation probably implies that this was normally enough to pay for a hull.<sup>215</sup> From the mid fourth century the accounts of the dockyard-supervisors put the value of a complete set of trireme equipment at 2169 or 2299 dr.<sup>216</sup> Together these figures suggest 1 t. 1234 dr. for a new trireme, which finds some corroboration in the assumption of Aristotle and others that such a ship could be built for one talent (e.g. *Ath. Pol.* 22.7; Plutarch *Themistokles* 4.2; Polyainos 1.30.6). Therefore the 29 ships that the city is likely to have built in 378/7 and 377/6 can be estimated at 34 t. 5786 dr.

The horses of the cavalry corps were another significant capital cost. By the 370s Athens had long helped its upper-class youths to join the corps by providing each recruit with a *katastasis* or establishment loan of up to 1200 dr. for the purchase of his war-horse (Eupolis fragment 293 Kassel and Austin; Lysias 16.6-7).<sup>217</sup> Since a horseman paid the city back only when he retired from the corps, it is possible that he may have been able to offset some of this private expense by selling his war-horse. The most reliable evidence we have for the cost of such mounts is the lead tablets of the cavalry-headquarters of the later fourth and third centuries, which were

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<sup>211</sup> *IG II<sup>2</sup>* 1606.11-12, 24-6, 29-30, 69-70, 74-50, 78-9, 82-3, 86-8; 1607.4, 7-8, 17, 20-1, 44, 114-15, 138-40, 142-3, 145-6, 152-3; 1608.5; 1610.23-4, 30-2. The other accounts of this decade also list ships which the Thebans as new allies gave the Athenians (1605.13-14; 1607.155-6).

<sup>212</sup> *IG II<sup>2</sup>* 1609 has several ‘new’ ships (97, 99-100, 102) but could equally be from 366/5 or 371/0.

<sup>213</sup> Boeckh 1828, volume 1, 145-6 (book 1 chapter 19); Robbins 1918, 363-4; cf. Unz 1985, 36 n.57.

<sup>214</sup> Boeckh 1840, 220; Brun 1983, 143; Christ 2006, 175; Gabrielsen 1994, 139, 142-3.

<sup>215</sup> Gabrielsen 2008.

<sup>216</sup> Gabrielsen 1994, 152-3 with primary sources.

<sup>217</sup> Bugh 1988, 56-7; Spence 1993, 183, 279.



discovered in wells of the Kerameikos and *agora*.<sup>218</sup> They record the annually adjusted market value of each member's horse.<sup>219</sup> The prices of the 19 fourth-century tablets which are legible range from 100 to 700 dr. and average out at 408 dr.<sup>220</sup> A member of the cavalry corps also had a *hippokomos* or groom, who cared for his horse and carried his equipment and supplies in the field (Thoukydides 7.75.5; Xenophon *Cavalry-Commander* 4.4, 5.6). A safe estimate of how much a *hippeus* spent on a horse for this slave might be 100 dr., which is the lowest recorded unit price we have from the cavalry archive and literary sources.<sup>221</sup>

Athenian horsemen probably retired after 10 to 15 years.<sup>222</sup> By their early thirties upper-class citizens would have started political careers, picked up new social responsibilities as they became the heads of households, and found the physical toils of training and fighting as horsemen increasingly difficult (Xenophon *Cavalry-Commander* 1.2, 9). In addition those whose participation in the corps depended on the *katastasis* would probably have been unable to buy a second war-horse when their first, after a decade or so, was no longer fit for service. Significantly the average depreciation of a war-horse was 100 dr. per year.<sup>223</sup> This means a horseman could have used the sale of his mount to offset his establishment loan only if he retired within 3 or 4 years. Since it is highly unlikely that a phylarch would have let one of his tribal unit resign so well short of a regular term of service, horsemen ultimately had to pay for their mount and that of their groom out of their own pockets.

In any one archontic year how much was spent on this capital cost? In the 360s Xenophon firmly believed that the cavalry-corps had a steady membership of one thousand (Xenophon *Cavalry-Commander* 1.2, 9-10, 19; 9.3).<sup>224</sup> With an average length of service of 12.5 years this translates into 800 retirements per decade. Therefore, 80 horsemen on average would have retired and hence repaid their *katastaseis* every year. To maintain the corps' strength the same number had to join and buy horses for their *hippokomoi* as they did so. In light of the abovementioned unit-costs this points to the private spending of 6 t. 4640 dr. on horses for the cavalry

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<sup>218</sup> Braun 1970, 129-32, 198-269; Kroll 1977.

<sup>219</sup> Kroll 1977, 97-100.

<sup>220</sup> Spence 1993, 274-7. The mean of the 500 or so tablets of the next century is 676 dr. Since the third-century cavalry was considerably smaller and more socially exclusive, its members could afford more expensive mounts (277-8).

<sup>221</sup> Aristophanes *Clouds* 21-3; Isaios 5.43; Lysias 7.10; Xenophon *Anabasis* 7.8.6.

<sup>222</sup> Bugh 1988, 62-74, 158.

<sup>223</sup> Kroll 1977, 93-9.

<sup>224</sup> Bugh 1988, 154-6; Hansen 1991, 316.

per year. A dearth of evidence on basic parameters entirely rules out the estimating of the other capital costs: fortifications, weapons and armour.<sup>225</sup> Therefore the sum of the yearly amounts which were spent on shipbuilding and horses serves as a certain minimum estimate for this cost-class. In 378/7 and 377/6 this was 24 t. 1533 dr. per year and dropped to 6 t. 4640 dr. per year between 376/5 and 370/69.

The cavalry also represented a significant fixed operating expense for the city. Xenophon confirms that the city spent ‘nearly forty talents yearly’ in order to have horsemen whom it could deploy immediately when a war broke out (*Cavalry-Commander* 1.19). Because the *katastaseis* which retiring members paid back would have covered the loans granted to new recruits, this public money was most probably used for the *misthos* or pay which every horseman received (1.23). Forty talents would provide year-round pay for 1000 at the rate of 4 obols per day.<sup>226</sup> What survives of *Against Theozotides* by Lysias corroborates this pay-rate and suggests it dates back to the last years of the previous century. The speech attacks this politician for two motions which he proposed to the Athenian assembly, probably in 403/2.<sup>227</sup> A surviving fragment shows that the subject of one proposal was the *misthos* of the cavalry-corps (fragment 6.73-9 Gernet-Bizos): ‘...concerning war this Theozotides put forward the motion that the horsemen would receive as pay (*misthophorein*) 4 obols instead of 1 dr. and the mounted archers 8 obols instead of 2 dr.’<sup>228</sup> Lysias tell us this proposal was carried (79-81). On the basis of this fragment the fixed operating cost of the cavalry, before 403/2, appears to have been more than one half higher than in Xenophon’s day and, if pay for the cavalry was halved as it was for the other wings of the armed forces in 412, it would have been more than three times higher during the first three phases of the Peloponnesian War.<sup>229</sup> Critically gross pay of 4 obols would normally not have been sufficient to cover a corps-member’s day-to-day expenses.<sup>230</sup> For example, Iain Spence very carefully calculates how a fourth-century horseman had to spend between 3 and 6 obols per day (and considerably more during

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<sup>225</sup> Brun 1983, 147-8; Gabrielsen 2007, 258; 2008.

<sup>226</sup> Loomis 1998, 51; Kroll 1977, 97-8 n.36.

<sup>227</sup> Stroud 1971, 297-301.

<sup>228</sup> With Loomis 1995.

<sup>229</sup> Loomis 1998, 45-6.

<sup>230</sup> For most of the classical period Athenian authors employed *misthos* to describe the sum of military pay and any other monies handed out for maintenance in the field (Loomis 1998, 33-6, 49). This changes only in the late 350s when a distinction emerges between the *sitēresion* or maintenance money which generals handed out and *misthos* which was over and above this (e.g. [Demosthenes] 50.10).

times of shortage) on the feed for his war-horse and that of his groom.<sup>231</sup> As a consequence, his *misthos* never fully defrayed the cost of his mount. Corps-members, finally, did not receive any extra pay when on campaign; there is simply no evidentiary support for the older view that horsemen received 1 dr. per day in the field.<sup>232</sup> In his *First Philippic* of 352/1 Demosthenes suggests that the horsemen of his year-round amphibious force should receive a *sitēresion* of 1 dr. per day (4.28-9). But his whole proposal was rejected by the *dēmos*, and Xenophon, writing around the same time, implies that the daily pay for horsemen had long remained unchanged (*Ways and Means* 6.1).<sup>233</sup>

Athens in the 370s also kept at sea or had ready for deployment a fixed number of triremes. The Paralos and Salaminia were employed for the urgent conveying of messages and generals and could (if required) play leading parts in naval battles.<sup>234</sup> For each of these so-called sacred ships the people elected annually a *tamias* or treasurer, who was given 12 t. of public funds (*Ath. Pol.* 46.7; Demosthenes 21.171, 174). Since the *misthos* for sailors was probably restored to its pre-412 level at the beginning of the fourth century, this amount would have covered exactly the pay of a trireme-crew for an entire Attic year.<sup>235</sup> That it was so used seems very likely: these ships could only have been deployed in the ways they were if a full complement of highly trained sailors was always at hand. These treasurers apparently also doubled up as the trierarchs and hence also bore the regular out-of-pocket expenses of this liturgy (Demosthenes 21.171, 174; Isaïos 5.6; Plutarch *Themistokles* 7.5). With the inclusion of these two trierarchies the total of this fixed operating cost would have been 25 t. 2872 dr.

Athens in the fifth century regularly had twenty guard ships at sea (*Ath. Pol.* 24.3; cf. Thoukydides 8.74.2-3). Direct evidence may be lacking for the city deploying a similar force in the next century but this, too, seems likely.<sup>236</sup> Guard ships were manifestly required: in the years before the King's Peace, and again in the 370s, private raiders and Spartan ships sailed out from Aegina to attack Attike and its coastal shipping (Xenophon *Hellenika* 5.1.1-25; 6.2.1). That Athens took action

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<sup>231</sup> Spence 1993, 280-5.

<sup>232</sup> E.g. Robbins 1918, 378.

<sup>233</sup> Hansen 1991, 316.

<sup>234</sup> E.g. Demosthenes 4.34; 8.29; Thoukydides 3.33.1, 77.3; 6.53.1, 61.4; 8.74.1; Xenophon *Hellenika* 2.1.3; 6.2.14. Brun 1983, 149-50; Gabrielsen 1994, 73, 243 n.12.

<sup>235</sup> It was most probably restored to 1 dr. per sailor per day or 1 t. per trireme crew per month (Loomis 1998, 57-8).

<sup>236</sup> Brun 1983, 150-1; Robbins 1918, 373-6; C.H. Wilson 1970, 313-4.

against these threats is clearly implied by what Xenophon writes of the herculean efforts of Iphikrates to man a large fleet in 373/2 (*Hellenika* 6.2.14): ‘He also obtained from the Athenians whatever war-ships were cruising here or there in the neighbourhood of Attica, as well as the Paralus and the Salaminia, saying if matters in Corcyra turned out successfully, he would send them back many ships.’<sup>237</sup> In light of the post-imperial city’s reduced circumstances scholars normally assume it had around half the number of guard ships it did in the previous century (cf. 2.2.20). Because the coasts of Attike could have been easily attacked any time during the sailing season of eight months, the average length of service of these ships may well have been 6 months.<sup>238</sup> The combined salary and trierarchic expenses of such a force is 67 t. 2360 dr. Smaller fixed operating costs were the pay for the hoplites which the Athenians stationed in the forts of Attike, their garrisons abroad, and the corps of *ephēboi* or eighteen- and nineteen-year-old cadets, which possibly dates back to the 370s (Aiskhines 1.49; 2.167). Due to the paucity of our evidence, once again, we cannot determine the basic parameters of these military activities and hence their cost to the public purse.<sup>239</sup> What we can conclude, however, is that the Athenians of the 370s, before they even dispatched a naval expedition or land army, spent no less than 132 t. 5236 dr. per year on the fixed operating costs of their armed forces.

For this decade Robbins identified eleven distinct campaigns and determined their chronologies on the basis of the modern calendar year.<sup>240</sup> In estimating the variable operating costs of the Athenian armed forces I employ the troop- and ship-numbers which he worked out for these campaigns and assign each to archontic years.<sup>241</sup> I split trierarchic costs equally between archontic years when a naval venture

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<sup>237</sup> Translated by Brownson.

<sup>238</sup> Brun 1983, 151.

<sup>239</sup> The number of ephebes and the amount of public funds spent on their upkeep are well attested for the period after the major reform of this corps around 336/5 (*Ath. Pol.* 42; Hansen 1985, 12, 47-50), which allows Hansen to cost it at ‘some 25 talents’ (1991, 316). Although there is no strong evidence for the number of ephebes before this reform, they did not receive state-support and hence would have been considerably less numerous (Burckhardt 1995, 131; Humphreys 2004, 88-9; Pritchard 2003, 328-30 *pace* Brun 1983, 152-3).

<sup>240</sup> Robbins 1918, 378-86.

<sup>241</sup> I assign the campaigns which Robbins numbered to archontic years as follows: campaign 2 and the first 2 months of campaign 3 to 378/7; the remaining 4 months of campaign 3 and campaign 4 to 377/6; campaign 5, the first 4 months of campaign 6, and the first 4 months of campaign 7 to 376/5; the remaining 4 months of campaign 6, and the remaining 11 months of campaign 7 to 375/4; the first 9 months of campaign 8 and the first 3 months of campaign 9 to 374/3; the next 12 months of campaign 8, the remaining 4 months of campaign 9, and the first 3 months of campaign

straddles the two. Since upper-class citizens were obliged to bear these only for twelve months in any one trierarchy and could claim a two-year exemption from all liturgies after the undertaking of this public service (e.g. [Demosthenes] 50.39; Isaïos 7.38), my calculations include a second set of trierarchs if an expedition went for more than a year.<sup>242</sup> Finally I assume that the cost of a trierarchy was 4436 dr., the gross pay of a soldier or sailor 1 dr. per day, and the total pay of a trireme-crew 1 t. per month.<sup>243</sup> Table 5 summarizes the results of my calculations and aggregates the figures of the three cost-classes. The annual high of nearly one thousand and the low of only one hundred and forty talents once again bear out the great variability in military spending from year to year. The annual mean of the global cost of military affairs from 378/7 to 370/69 is 522 t.

<b>Table 5: Public and Private Expenditure on Military Affairs in the 370s</b>				
<b>Archon Year</b>	<b>Capital Costs</b>	<b>Fixed Operating Costs</b>	<b>Variable Operating Costs</b>	<b>TOTAL</b>
378/7	24 t.	133 t.	72 t.	<b>229 t.</b>
377/6	24 t.	133 t.	112 t.	<b>269 t.</b>
376/5	7 t.	133 t.	787 t.	<b>927 t.</b>
375/4	7 t.	133 t.	858 t.	<b>998 t.</b>
374/3	7 t.	133 t.	229 t.	<b>369 t.</b>
373/2	7 t.	133 t.	500 t.	<b>640 t.</b>
372/1	7 t.	133 t.	787 t.	<b>927 t.</b>
371/0	7 t.	133 t.	—	<b>140 t.</b>
370/69	7 t.	133 t.	60 t.	<b>200 t.</b>
<b>ANNUAL AVERAGE</b>				<b>522 T.</b>

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10 to 373/2; the remaining 12 months of campaign 8, and the remaining 12 months of campaign 10 to 372/1; and campaign 11 to 370/69.

<sup>242</sup> Christ 2006, 152.

<sup>243</sup> Loomis 1998, 57-8.

Admittedly the absence of consistently detailed evidence for the campaigns of the 360s reduces the reliability and granularity of any estimate of military spending in the decade. However, what can be established with some confidence about this decade's scale of military activity suggests that the overall level of military-related spending was no less than in the 370s. The battle of Leuktra of 371/0 completely destroyed Sparta as a regional power and gave the Athenians their long-desired opportunity to restore the control of the Khalkidike and the Khersonese that they had lost at the end of the Peloponnesian War.<sup>244</sup> For the subsequent campaigns George Cawkwell consolidated the evidence for ship numbers a quarter of a century ago (e.g. Diodoros 15.71.3-4).<sup>245</sup> His conclusion has been widely accepted: 'All in all, it would not be surprising if the Athenians had 40 or 50 ships a year out on active service in the 360s.'<sup>246</sup> The generally smaller naval expeditions of the early to mid fourth century lasted longer on average than those of the Arkhidamian War: in the 360s alone two went for more than 6 months and another three for a year or more.<sup>247</sup> In this context a safe assumption for the average length of service for the city's warships (including the guard ships) would be 6 months.<sup>248</sup> To keep at sea for this time the 45 ships Cawkwell proposes would have cost the public purse and upper-class trierarchs 333 t. 1620 dr.<sup>249</sup>

Although there is no reason to believe fixed operating costs increased in the 360s, capital costs were probably several times higher. At the close of the previous decade the city's dockyards would have had no more than 165 warships.<sup>250</sup> By 357/6, the next archontic year for which a naval inventory survives, the total had risen to 283 (*IG II*<sup>2</sup> 1611.5-9). As the intervening period saw 'no great captures', Athens of

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<sup>244</sup> Heskell 1997, 15-17.

<sup>245</sup> Cawkwell 1984, 334-5 with primary sources.

<sup>246</sup> Cawkwell 1984, 334. E.g. Burckhardt 1995, 122.

<sup>247</sup> *Pace* Demosthenes 9.50-1. Iphikrates and his forces were at Amphipolis from September 369 to May 365 (Heskell 1997, 22-6, 40-6). Timotheos left Athens with 30 ships in July 366, took Samos in May 365, and then moved north for 2 years of campaigning in the Khalkidike (26-37, 43-52, 134-53). Ergophilos spent 6 months defending Sestos in 363/2 (Demosthenes 2.104; Heskell 1997, 85-8, 141-2). Timomakhos campaigned in the region for the full term of his generalship in 362/1 ([Demosthenes] 50), while Kephisodotos commanded a small fleet in the Hellespont for 7 months in 360/59 (Demosthenes 23.165; Heskell 1997, 54-60).

<sup>248</sup> The exceptions were the Paralos and Salaminia whose crews were paid year round (see above).

<sup>249</sup> The cost of the two messenger ships alone was 25 t. 1620 dr.

<sup>250</sup> This is simply the sum of the 102 ships of 377/6 and the documented net gains from the subsequent sea battles of the 370s (see above).

the 360s must have built very many more ships than in the previous decade.<sup>251</sup> Simply to keep ship-numbers steady would have required the *boulē* to commission 8 ships per year on average.<sup>252</sup> In the 13 years from 370/69 another 9 new ships per year would have been needed on average in order to get ship numbers to where they were in 357/6. At a construction cost of 1 t. 1234 dr. per trireme then the average amount Athens of the 360s spent on shipbuilding per year would have been 20 t. 2978 dr. As the total cost of the cavalry's horses probably did not change, this sustained shipbuilding would have lifted minimum capital costs to no less than 27 t. 1618 dr. per annum. For the 360s the public and private spending on military activities which is estimable adds up to some 401 t. But this does not include the *misthos* of the mercenary and citizen soldiers whom the Athenians of this decade regularly deployed to bolster the trireme crews of their expeditions. The one surviving set of basic parameters there is for such deployments suggests that they would have been a very significant variable operating cost: Isokrates tells us Timotheos employed 8000 peltasts during his 10-month siege of Samos in 366/5 (15.111-12). Their pay alone would have been 406 t. It seems highly likely then that the global cost of the Athenian armed forces would have continued at the average level of five hundred talents per year throughout the 360s.

## 5. Conclusion: Athenian Spending Priorities

This chapter disproves categorically Boeckh's judgement that classical Athenians spent more on the religious celebrations of the city than its armed forces and that the two passages which he cited in its defence manifestly unreliable. Admittedly my estimates do confirm that the global cost of state-sponsored festivals from 430 to 350 was significant: at some 100 t. per year this was comparable to the operating costs of the democracy and fully justified Aristophanes' association of wealth with the 'holding of musical and athletic contests' (*Wealth* 1161-3). Since the City Dionysia and Great Panathenaia accounted for at least 35 percent of this total, the focusing of Demosthenes on these two showcases in his unflattering comparison of the city's staging of festivals and its war-making also seems to have been justified (4.35-7). In the times of war, however, this chapter demonstrates that military-related expenditure dwarfed what was spent on all other public activities combined. During

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<sup>251</sup> Quotation from Robbins 1918, 371.

<sup>252</sup> Since the average lifespan of a trireme was probably 20 years (Blackman 1969, 214-6), half of the original 165 ships would have retired in the course of the 360s.

the 370s and 360s the average annual total of public and private spending on the armed forces was not less than 500 t. This is five times as much as what Athens and its private citizens spent on state-supervised festivals and sacrifices each year. With the imperial revenues and the accumulated reserves of the previous century public expenditure alone on military affairs from 433 to 423 was 1500 t. on average per year. In the course of the Peloponnesian War it ranged between five and fifteen times more than what was spent, in total, on state-sponsored festivals and sacrifices.

Even in times of peace the Athenian army and navy used up more public and private money than either the democracy or its program of religious celebrations. In the 370s and 360s the total of capital and fixed operating costs of the armed forces was more or less 150 t. per year. This annual recurring expenditure was almost double before 412, when Athens had twice the number of guard ships and the daily pay of its larger cavalry corps was three times higher. Classical Athenians, however, bore the burdens of war more frequently than they reaped the benefits of peace. They waged war from 396 to 386 and then from 378 to 338 with only brief periods of respite. In the previous century they fought on multiple fronts from 431 to 404 and were at war on average for two out of three years, never enjoying more than a decade of peace.<sup>253</sup> In addition classical Athenians accepted very high numbers of battlefield deaths and constantly glorified and legitimised their military victories and power in the city's public art and architecture, public discourse and civic ceremony.<sup>254</sup> In addition war and foreign policy were the main topics of political debate, with war and peace being compulsory items on the agenda of the *ekklēsia kuria* or main assembly-meeting of each month (e.g. Aristophanes *Akharnians* 19-27; *Ath. Pol.* 43.4). The clear differential between festival- and military-related spending, the almost constant campaigning of the Athenian democracy and its general culture of militarism put it beyond doubt that it was not drama or religion but *polemos* which was the overriding priority of the Athenian people.

The two passages which Boeckh cited in defence of his negative view of Athenian funding priorities are manifestly unreliable.<sup>255</sup> The comparison which Demosthenes drew between the disorganised war-making of his contemporaries and their staging of festivals was part of his early rhetorical strategy to shame the *dēmos* into taking up arms against Philip of Macedon (4.35-7). For classical Athenians

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<sup>253</sup> Garland 1975, 15.

<sup>254</sup> Garland 1995, 53-4; Pritchard 2007, 335-6; Raaflaub 2001, 323-8.

<sup>255</sup> Pace P. Wilson 2008, 119.



orderliness, which was denoted by *eutaxia*, *eukosmia* and similar terms, encouraged citizens to be *sōphrones* ('moderate'), law-abiding and respectful of elders and underwrote the victory and praiseworthy performance of soldiers and sailors alike (e.g. Aiskhines 1.22-7, 33-4; Demosthenes 18.216; Xenophon *Memorabilia* 3.1.17).<sup>256</sup> In describing their military activity as 'disordered (*ataкта*), uncorrected and indeterminate' Demosthenes was clearly accusing his fellow citizens of not meeting this civic virtue (Demosthenes 4.36). But his comparison did more than simply bear out this lack. The staging of festivals was essentially commendable: they delighted their objects of worship and gave mortals respite from (among other things) the *ponoi* ('toils') of war (e.g. *Homeric Hymn to Apollo* 146-50; Thucydides 2.38.1).<sup>257</sup> Demosthenes, however, criticised the Athenian people for preparing for the City Dionysia and Great Panathenaia more carefully than for war and for spending more on these festivals than they did on 'one of their naval expeditions' (4.35-7). This preference for the *terpsis* or delight of festivals implies that contemporary Athenians are no longer willing to endure the *kindunoi* and *ponoi* of hegemony (as their ancestors had done) and aligns them to the feast-loving Phaiakians of Homer or, worse still, the historical Ionians, whose soft living and general unmanliness were thought by classical Athenians to have made them unwilling to bear the burdens of war in defence even of their own freedom (e.g. Herodotos 1.143; 5.68; 6.11-14; Thucydides 1.99).<sup>258</sup>

These and other aspersions of Demosthenes about Athenian war-making are demonstrably false. In particular the citizens of fourth-century Athens usually spent many times more on a single naval expedition than they did on the City Dionysia and Great Panathenaia. By the time of his assembly speech an Athenian fleet normally numbered 30 ships and was probably away on average for 6 months.<sup>259</sup> The 36 t. per annum which the Athenians spent on these two festivals would have kept such a force at sea for little more than a month. Indeed Demosthenes even undercut his own claim about Athenian funding priorities in the course of this speech, when he costed the small amphibious force that he was proposing at more than 90 t. (4.28). Therefore his so-called *First Philippic* bears witness to the unexpected licence which the Athenian

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<sup>256</sup> Roisman 2005, 192-5.

<sup>257</sup> For the enjoyment of festivals by deities, heroes and heroines, see Scanlon 2002, 26-9.

<sup>258</sup> On the 'delight' of mortals at festivals, see Scanlon 1983, 157-8; 1988, 240, 242. For the Phaiakians and their ancient reception-history, see especially Dickie 1984.

<sup>259</sup> For the return of fleets to this scale by 353/2, see Burckhardt 1995, 114; Cawkwell 1962a, 130, 139; 1984, 334-5. For 6 months as an average length of service in the 360s, see part 4 above.

*dēmos* gave their public speakers, their tolerance of unwarranted criticism, and the attraction of foreign policy for young and ambitious politicians as a topic of debate where they could more easily distinguish themselves.<sup>260</sup> Less unexpected is the claim of Plutarch that Athens spent more on tragic productions than they did on maintaining their fifth-century empire or fighting the Persian Wars (*Moralia* 349a). This was made in an epideictic oration of the late first century of our era which Plutarch probably delivered at Athens (345f).<sup>261</sup> Its unusual argument is that the generals and military victories of classical Athens are more deserving of praise than its historians, orators, poets and visual artists (e.g. 345c, 346f, 347c). This may have belittled Plutarch's *métier* as a writer but gave him ample opportunities to display his rich knowledge of Athenian history, literature and public art. Since *On the Glory of Athens* is clearly no serious analysis of classical Athens, its demonstrably wild exaggerations about Athenian funding priorities cannot be taken at face value.<sup>262</sup>

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<sup>260</sup> Raaflaub explains (2001, 319-20): 'Foreign policy and wars provided the bulk of the assembly's agenda and most of the contentious issues. This was the sphere in which politicians could distinguish themselves and here they fought their rhetorical battles. In such an atmosphere proposals for activist and aggressive policies a priori had a better chance: glory and a great reputation for leadership depended on success in action and victory, not on caution, quietism, and peace.'

<sup>261</sup> Russell 1973, 31-4.

<sup>262</sup> Parts of this chapter were delivered, in 2008, at the twenty-ninth conference of the Australasian Society for Classical Studies, convened by the University of Canterbury, and to seminars at the University of Sydney and Macquarie University; and, in 2009, to a seminar at the University of Copenhagen and at the combined annual meeting of the Classical Association and the Classical Association of Scotland, which was convened by the University of Glasgow. I am grateful for the thoughtful comments of those who heard these papers. Sincere thanks also go to those who commented on earlier drafts of this chapter or helped me work through the challenges of econometric analysis. They include Jumana Bayeh, Alastair Blanshard, Eric Csapo, Peter Fawcett, Kristy Fisher, Mark Golden, Mogens Hansen, Julia Kindt, Donald Kyle, Margaret Miller, Paul Millett, Robin Osborne, David Phillips, Kurt A. Raaflaub, P.J. Rhodes, Iain Spence, Allan Stam, Panos Valavanis, John Whitehorne, Peter Wilson and my co-authors in this volume. I am responsible for any remaining errors and have translated the passages of Greek unless otherwise indicated.

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